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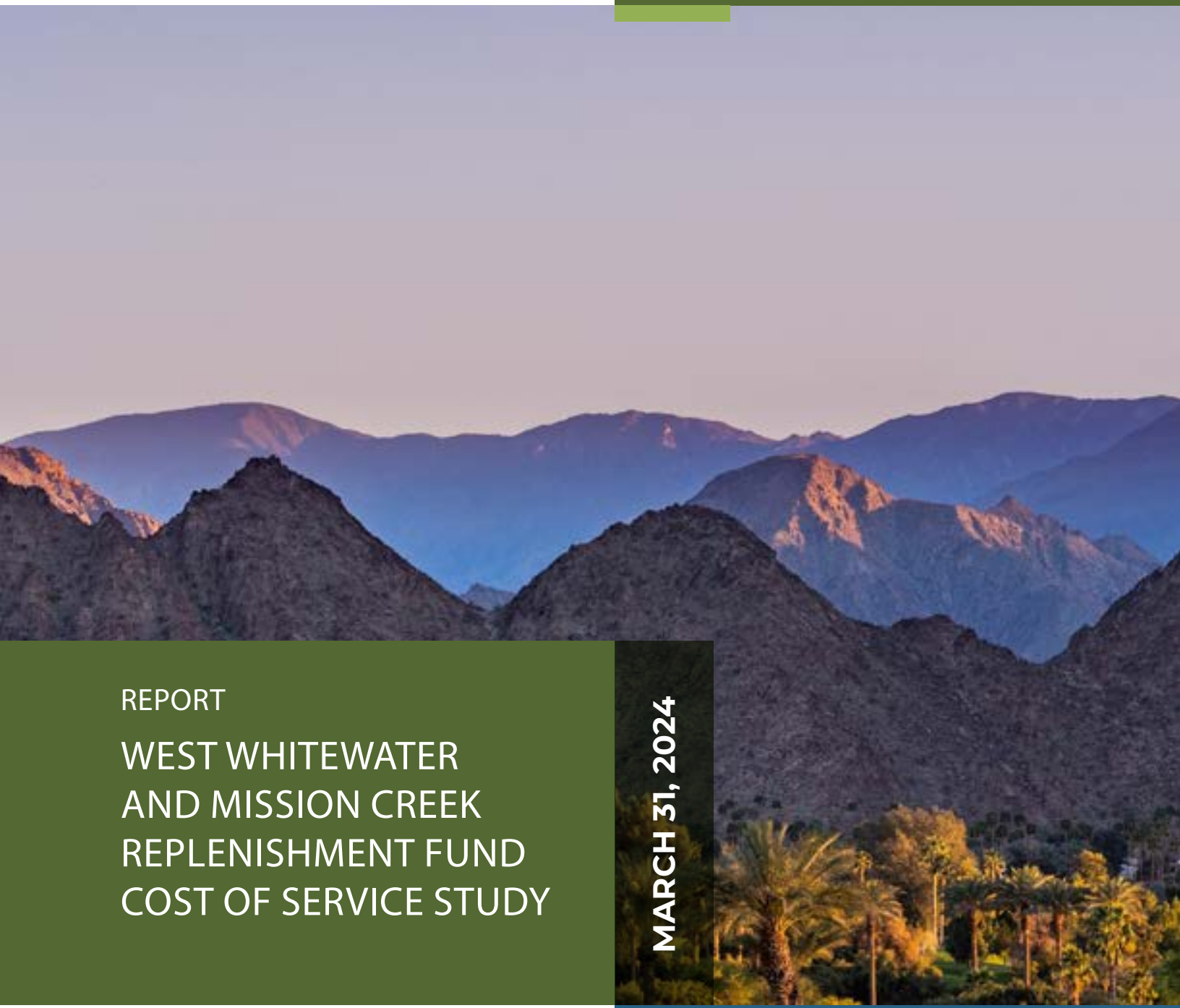

REPORT

WEST WHITEWATER AND MISSION CREEK REPLENISHMENT FUND COST OF SERVICE STUDY

MARCH 31, 2024

Prepared for:
Coachella Valley Water District
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EXECUTIVE SUMMARY

NewGen Strategies and Solutions, LLC (NewGen) has completed a cost-of-service study for the Coachella Valley Water District's (CVWD or District) Replenishment Assessment Enterprises – Three Areas of Benefit. This report summarizes the results of NewGen's analysis regarding the West Whitewater Replenishment Fund (West Whitewater Fund) and the Mission Creek Replenishment Fund (Mission Creek Fund). The purpose of the study was twofold. First, NewGen was tasked with validating (or not) the methodology supporting the justification for CVWD's Fiscal Year (FY) 2024 West and Mission Creek Groundwater Replenishment Assessment Charges (RACs). Second, NewGen was tasked to provide a four-year financial forecast, cost of service analysis, and rate recommendations for both West and Mission Creek RACs for FY 2025 through FY 2028.

Evaluation of West and Mission Creek FY 2024 RACs

NewGen validated CVWD's practice of distinguishing replenishment service in three Areas of Benefit (AOB), namely the West Whitewater, East Whitewater, and Mission Creek AOBs based on previous consultants' memorandums and an engineer's report detailing the distinct facilities and hydrology of the three AOBs. Furthermore, NewGen validated that the FY 2024 West Whitewater and Mission Creek RACs follow Proposition 218 requirements, specifically that FY 2024 West Whitewater and Mission Creek RACs are below the cost of service of each Fund in FY 2024.[1] Both the West Whitewater and Mission Creek funds have sufficient reserves to meet annual revenue requirements in FY 2024.

Four-Year Financial Forecast

The financial forecast is driven by the objective to have revenues meet annual revenue requirements in each forecast year. In any year in which that is not the case, the District may use fund balance (i.e., reserves) to meet the annual revenue requirement of the Fund. However, the West Whitewater Fund should satisfy CVWD's designated reserves policies at the end of each forecasted year. If the forecast results in any year in which the West Whitewater Fund balance violates any of CVWD's reserve policies, then CVWD must develop a plan to bring the Fund into compliance with all reserve policies within five years. The four-year financial forecast for the West Whitewater Fund is shown in Table E-1.

[1] The District complies with Proposition 218 voluntarily in the interest of a transparent and accountable relationship with those it serves. It does not waive its position that only Proposition 26, which demands less of ratemakers, applies to replenishment charges.

Table E-1
Financial Forecast with Proposed Increases

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
RAC Revenue Increase	0.0%	3.0%	3.0%	3.0%	3.0%
Operating Revenues					
RAC Revenues	$19,844,400	$20,269,270	$20,789,640	$21,322,600	$21,869,100
Subtotal: Rate and Surcharge Revenue	**$19,844,400**	**$20,269,270**	**$20,789,640**	**$21,322,600**	**$21,869,100**
Non-Potable Sales	$4,767,200	$5,065,873	$5,278,730	$5,499,436	$5,728,422
Other Revenues	$5,674,756	$8,764,445	$8,745,708	$3,353,266	$3,440,276
Total Revenues	**$30,286,356**	**$34,099,588**	**$34,814,077**	**$30,175,302**	**$31,037,798**
Operating Expenses	**$29,875,835**	**$23,484,009**	**$25,119,268**	**$26,056,959**	**$26,866,966**
Net Operating Revenues	**$410,521**	**$10,615,579**	**$9,694,809**	**$4,118,343**	**$4,170,832**
Debt Service					
Interfund Debt Service	$3,945,387	$3,945,387	$3,945,387	$3,945,387	$3,945,387
Existing Bond Debt Service	$-	$-	$-	$-	$-
Projected Debt Service	$-	$-	$-	$-	$-
Total Debt Service	**$3,945,387**	**$3,945,387**	**$3,945,387**	**$3,945,387**	**$3,945,387**
Capital Grants	$-	$-	$-	$-	$-
Capital Expenses					
Capital Projects (PAYGO)	$40,383	$75,990	$78,270	$76,500	$76,740
District Wide Projects	$211,310	$201,500	$202,500	$172,500	$10,000
SWSC Funded Projects	$2,000,000	$5,500,000	$5,500,000	$-	$-
Total Capital Expenses	**$2,251,693**	**$5,777,490**	**$5,780,770**	**$249,000**	**$86,740**
Contributions to Reserves	$-	$1,500,000	$1,500,000	$400,000	$200,000
Total Revenue Requirements	**$36,072,915**	**$34,706,886**	**$36,345,425**	**$30,651,346**	**$31,099,093**

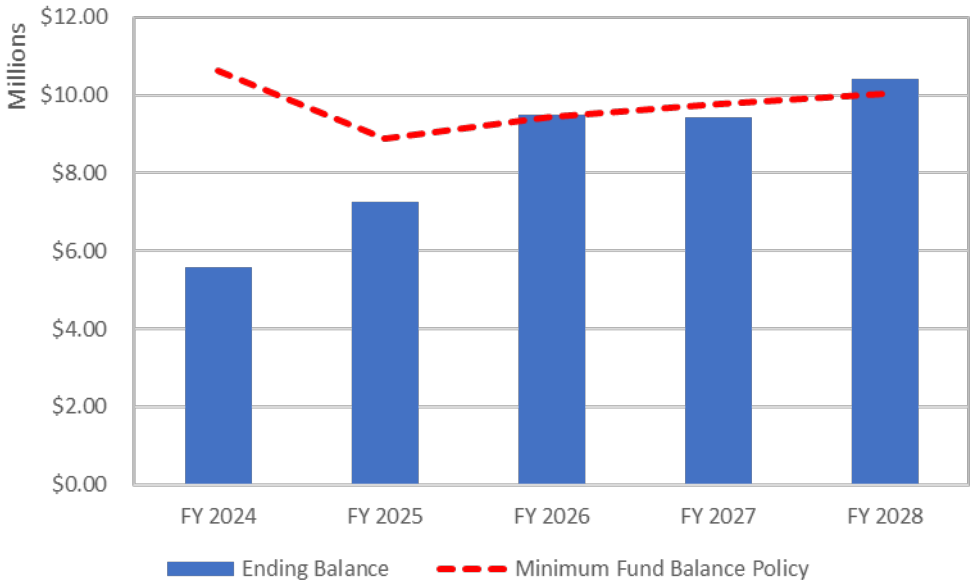
West Whitewater Fund Balance Forecast

The West Whitewater Fund balance forecast is shown in Table E-2.

Table E-2
West Whitewater Fund Balance Forecast at Recommended RACs

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Beginning Balance	$18,486,677	$5,575,118	$7,967,820	$9,436,472	$9,760,428
Total Revenues	$30,286,356	$34,099,588	$34,814,077	$30,175,302	$31,037,798
Revenue Requirement	$36,072,915	$34,706,886	$36,345,425	$30,651,346	$31,099,093
Less: Reserves	$-	($1,500,000)	($1,500,000)	($400,000)	($200,000)
Total Operating Expenses	$36,072,915	$33,206,886	$34,845,425	$30,251,346	$30,899,093
Contributions to Reserves	$-	$1,500,000	$1,500,000	$400,000	$200,000
Transfer to Legal Liability	($7,125,000)	$-	$-	$-	$-
Increase (Decrease)	($5,786,559)	$2,392,702	$1,468,652	$323,956	$338,705
Ending Balance	**$5,575,118**	**$7,967,820**	**$9,436,472**	**$9,760,428**	**$10,099,133**
Minimum Fund Balance Policy	$10,622,790	$8,884,420	$9,448,145	$9,768,927	$10,046,600
Over / (Under) Policy	($5,047,672)	($916,599)	($11,673)	($8,499)	$52,533

Figure E-1 – West Whitewater Fund Balance Forecast at Recommended RACs



Proposed Rates

A summary of annual proposed rates is detailed in Table E-3.

Table E-3
Recommended West Whitewater RACs

	FY 2024 Adopted	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
West RAC Increase		3.0%	3.0%	3.0%	3.0%
Proposed West Whitewater RAC ($/AF)	**$165.37**	**$170.33**	**$175.44**	**$180.70**	**$186.12**

Section 1
EVALUATION OF WEST WHITEWATER AND MISSION CREEK FY 2024 RACS

NewGen's evaluation of CVWD's Replenishment Assessment Enterprises – Three Areas of Benefit involved two items related to the justification of CVWD's RACs. First, NewGen was tasked with opining on the cost of service and rate making justification for accounting for costs and assessing distinct fees between the East, West, and Mission Creek Areas of Benefit (AOB). Second, if the distinction between the Areas of Benefit was justified, then NewGen was tasked with calculating whether the District's adopted FY 2024 RACs in each of the AOBs is at or below the cost to serve each AOB.

Evaluation of CVWD's Area of Benefit Designations

To evaluate the justification of CVWD's practice of distinguishing between the three Areas of Benefit, NewGen reviewed two documents:

- NBS Technical Memorandum: Analysis Of Roberts V. Coachella Valley Water District, Writ Of Mandate Riverside Superior Court, Case No. RIC1905897, which is dated August 2, 2022 (NBS Memo).
- CVWD's 2023-2024 Engineer's Report on Water Supply and Replenishment Assessment, which was finalized in April 2023 (2023 Engineer's Report).

To be clear, both the NBS Memo and the 2023 Engineer's Report address complex engineering and legal questions that are beyond NewGen's expertise as non-attorneys and non-engineers. Our assessment is focused on evaluating CVWD's RACs within the framework of foundational cost of service and ratemaking principles. As noted thoroughly in the NBS Memo, there is no "one-size-fits-all" approach to how the District should set rates, and our independent evaluation is rooted in our professional judgment of the relevant facts, as we understand them. There is no singular reasonable way to set water rates, and more than one rate structure may conform with industry practice. Our evaluation of the District's RACs is focused on whether they are reasonable and justified given the information provided to us by the District and our familiarity with industry standard rate making practices.

General Rate Setting Principles and Guidelines

The underlying concept in this evaluation is the justification of charging different groups of RAC customers different fees based on justifiable allocations of system costs. This practice is commonly referred to as identifying customer classes. The practice of distinguishing between customer classes in water rate making is well established and proper when the classes impose different costs on the utility. According to the American Water Works Association (AWWA) Manual M1 – *Principles of Water Rates, Fees, and Charges,* 7th Edition (Manual M1), "service characteristics" can be considered when establishing customer classes.[2] An example of a difference in service characteristics that would justify recognizing customers as being in separate classes would be customers in different geographical areas benefiting exclusively from different water production facilities. Another common example would be identifying costs separately

[2] AWWA Manual M1 (7th Edition) at p. 73

between classes of customers who demonstrate different demand patterns between their respective average and peak demands. Our evaluation of CVWD's justification for its distinction between AOBs is rooted in these fundamental and widely accepted concepts.

NBS Memorandum

The NBS Memo addresses several key questions, only one of which is the subject of our evaluation: what are (if any) the East vs. West AOB groundwater benefits as viewed from a rate-making perspective?[3] NBS noted, as we have, that they are not attorneys, and their memorandum is based on their experience in rate making. NBS also notes that the aquifer(s) underlying the East and West AOBs are complex and a simplistic approach to understanding how they impact and are impacted by groundwater replenishment activities is beyond NBS expertise.[4] NewGen echoes this statement, as we too are rate making experts and not groundwater experts. We have also relied upon technical studies prepared by engineering experts and have attempted to draw reasonable, independent conclusions based on our interpretation of those studies.

In its memo, NBS concludes that, in its professional opinion:

> *"[D]istinct RAC rates for West and East AOBs are consistent with industry practices because of the East/West differences in quantity, costs, and reliability of replenishment supplies needed, the historical establishment of the West AOB decades prior to the establishment of the East AOB, and the composition of customer types (West is primarily domestic customers vs. East which is primarily agricultural customers)." NBS Memo at p. 5*

NBS goes into detail to explain why they arrived at these conclusions. The purpose of our review of the NBS memo was to determine, given the information provided, whether these conclusions are reasonable.

NBS describes the material differences in the composition of the user base of the East and West AOB, the different primary water supplies and infrastructure used by each AOB, the different costs of those water supplies, and the disparate reliability of those supplies.[5] Given this information, NewGen also concludes that from a rate making perspective, the differences in customer composition, supply structure, and cost result in a reasonable justification to identify the East and West AOBs as separate user classes.[6]

There may be an argument that the above statement is made based on an arbitrary[7] distinction between the East and West AOB, and that the application of another distinction between the AOBs would garner different results. This argument may call into question the reasonableness of both NBS and NewGen's conclusions. From a rate-making perspective, it is prudent to avoid a result based analysis in which a desired result is determined and the assumptions that generate that preferred result are relied upon. The NBS Memo addresses this issue with a discussion regarding the reasonableness of the East/West boundary itself.

[3] NBS Memo at p.2.
[4] NBS Memo at p. 3.
[5] NBS Memo at p. 12, Figure 3.
[6] NewGen did not audit or validate the underlying data supporting the information in the NBS Memo and cannot vouch for their correctness or completeness. NewGen's evaluation assumes that the information contained in the NBS Memo is accurate.
[7] We use this word in its ordinary sense. We note that some of the hydrogeological evidence NBS reviewed uses "arbitrary" in a specific, scientific sense to denote a boundary that reflects observed groundwater flows but does not coincide with an earthquake fault or other known subsurface conditions which would explain those flows.

The NBS Memo goes into detail describing the establishment of the West AOB in 1976 and the natural establishment of the eastern boundary of the West AOB as the western boundary of the East AOB in 2004. A key point made in the NBS Memo that is supported by historical facts is that the "East/West boundary line was not created during a rate study or picked out of the air at any one point in time."[8] Based on this information, we also agree that the boundary between the East and West AOB were established without the intention of determining a particular rate or rate structure but based on the hydrological activity in each AOB. Therefore, from a rate-making perspective, the East/West boundary is a legitimate service characteristic to consider when determining whether customer classes are appropriate for CVWD's RACs. Furthermore, given the information in the NBS Memo, NewGen agrees that this historical distinction between the East and West AOBs (as opposed to an arbitrary, results based one) is appropriate for rate-making purposes.

Finally, NBS relied upon the composition of customers within the AOBs to arrive at its conclusion, specifically the distinction between agricultural and domestic customers and what proportion of each is in each AOB. NBS evaluated the possibility that the East/West AOB designation was invalid in part because West customers are substantially characterized as domestic users and East customers are substantially characterized as large agricultural users, and therefore the distinction between the two AOBs resulted in an unreasonable benefit to agricultural users at the expense of domestic users. NBS concludes that this was not the case for several reasons.[9] Given the information presented in the NBS report we discussed previously and based on our professional judgment, we agree with NBS that the East/West AOB distinction does not unreasonably benefit large agricultural users at the expense of domestic users. Based on common sense and our professional experience, the usage patterns of agriculture users are different than urban, domestic users. Agriculture users take large volumes of untreated water at irregular and perhaps infrequent times. For example, an agriculture user may use minimal (if any) water during the off-season but hits peak use in a short timeframe when new crops are planted. Domestic users are typically lower-volume users of treated water with more regular daily or hourly peak usage periods. These two classes of customers demonstrate fundamentally different use patterns which, even as relating to pumping of replenished groundwater supplies, impose different burdens on a utility, and further justify the distinction.

2023 Engineer's Report

The 2023 Engineer's Report's purpose is to "provide a summary of the groundwater supply conditions and the need for continued replenishment, a description of current groundwater replenishment programs (GRPs), and recommendations for Replenishment Assessment Charges (RACs) to be levied upon groundwater production from the three defined areas that benefit from the GRPs: the Mission Creek Subbasin Area of Benefit (AOB), the West Whitewater River Subbasin AOB, and the East Whitewater River Subbasin AOB." *2023 Engineer's Report at p. ES-1.*

NBS relied on several previous engineers' reports to support their conclusions.[10] The reports provide detailed insight into groundwater activity in CVWD's service area, and therefore provide information that experts in water rate making can use to make cost of service determinations.

NewGen reviewed the 2023 Engineer's report, including the following statements regarding the recharge activity in each AOB:

[8] NBS Memo at p. 9.
[9] NBS Memo at p. 13.
[10] NBS Memo at p. 8.

- **East Whitewater:** Artificial recharge of Colorado River water at the Thomas E. Levy (TEL) Groundwater Replenishment Facility (GRF).[11] *Id. at p. E-2.*
- **West Whitewater:** Artificial recharge of State Water Project (SWP) exchange water and Quantification Settlement Agreement (QSA) water at the Whitewater River GRF and artificial recharge of Colorado River water conveyed through the Mid-Valley Pipeline (MVP) to the Palm Desert GRF.[12] *Id.*
- **Mission Creek:** Artificial recharge of SWP water exchanged for Colorado River water with Metropolitan Water District of Southern California (MWD) and delivered to the Mission Creek GRF. *Id.*

Based on these descriptions of the activity in each AOB, NewGen concludes that each AOB consists of distinct water supplies and replenishment facilities. In particular, NewGen concludes, based on its review of the evidence the District supplied and applying its experience and professional judgment, that the evidence shows that: (i) the three areas of benefit have distinct hydrogeology, (ii) their boundaries are reasonably defined in light of that hydrogeology, (iii) the facilities assigned to each AOB in fact benefit it and not the other two, and (iv) any flow between basins is not sufficient to require a different cost allocation than described in this report. Therefore, it is appropriate that the District develop separate revenue requirements and rates for the three Areas of Benefit.

Validation of FY 2024 West Whitewater and Mission Creek RACs

CVWD accounts for costs distinctly between the three AOBs. Using CVWD's accounting and Fund structure, NewGen assessed the validity of CVWD's FY 2024 rates. While this report details NewGen's financial analysis and cost basis of the West Whitewater and Mission Creek RACs, the following table summarizes NewGen's results relative to the FY 2024 RACs for these two AOBs.

Table 1-1
Summary of FY 2024 West and Mission Creek RAC Cost of Service

	West Whitewater	Mission Creek
FY 2024 Adopted RAC	$165.37	$135.52
NewGen Cost of Service RAC	$213.59	$143.14
Difference (Adopted – COS)	($48.22)	($7.62)

For both the West Whitewater and Mission Creek RACs, NewGen determined that the adopted FY 2024 rates are below the justified cost of service in each AOB. The following sections of this report detail NewGen's recommended RACs for each AOB given the forecast expenses of each AOB and CVWD's fund balance policies.

[11] Future planned replenishment projects in the East Whitewater Subbasin include: 1) Phase 2 of the Oasis In Lieu Recharge Project; 2) development of a recycled water project at WRP 4 for additional source substitution; and 3) connection of five additional golf courses to receive Colorado River water or a blend of recycled water. *2023 Engineer's Report at p. ES-3.*

[12] Future planned replenishment projects in the West Whitewater Subbasin include: 1) Completion of Phase II of the Palm Desert GRF; 2) connection of 14 additional golf courses and municipal users to the Mid-Valley Pipeline; and 3) connection of 29 additional golf courses to the WRP 10 non-potable water system. *Id. at p. ES-2.*

Section 2
WEST WHITEWATER RIVER SUBBASIN AREA OF BENEFIT

CVWD accounts for the costs of replenishment activities in the West Whitewater River Subbasin Area of Benefit (AOB) in its West Whitewater Replenishment Fund. This section of our report describes the background of CVWD's West Whitewater Fund, the study's objectives, and the period over which our cost of service study recommends West Whitewater Fund Replenishment Assessment Charges (RACs).

West Whitewater River Subbasin Area of Benefit

Historical declines in groundwater levels in the western portion of the Whitewater River Subbasin led to a joint management agreement in 1976 between CVWD and the Desert Water Agency (DWA) to cooperatively conduct the West Whitewater River Subbasin Management Area Groundwater Replenishment Program (GRP). The West Whitewater River Subbasin Management Area contains two areas of benefit: The CVWD West Whitewater River Subbasin AOB and the DWA West Whitewater River Subbasin AOB.

Direct replenishment of the West Whitewater River Subbasin Management Area is accomplished via (1) artificial recharge of State Water Project (SWP) exchange water and Quantification Settlement Agreement (QSA) water at the Whitewater River Groundwater Replenishment Facility (GRF) and (2) artificial recharge of Colorado River water conveyed through the Mid-Valley Pipeline (MVP) to the Palm Desert GRF.

Because of years of replenishment, groundwater levels across most of the West Whitewater River Subbasin AOB have stabilized or increased. The implementation of the West Whitewater GRP has effectively abated historical overdrafts. Continued artificial replenishment is necessary to stabilize groundwater levels in some areas and prevent a return to conditions of overdraft given the reality of continued pumping from this subbasin.

Study Objectives and Guiding Principles

The objectives of the cost-of-service study were as follows:

- Evaluate adequacy of the projected revenues under existing rates with anticipated revenue requirements.
- Develop a four-year financial plan for CVWD's West Whitewater Fund incorporating both O&M and planned CIP costs.
- Propose Replenishment Assessment Charges (RAC) for four years in accordance with American Water Works Association (AWWA) guidelines, the California Constitution Articles XIII, C and D (Propositions 218 and 26), and all other applicable laws.

Fiscal Year and Study Period

CVWD operates on a Fiscal Year (FY) beginning July 1st each year and ending June 30th the following year. All years referenced in this report are Fiscal Years except when otherwise specified. For example, FY 2024 refers to the year beginning July 1, 2023, and ending June 30, 2024. The study period over which this report will detail cost of service based rates is FY 2025 – FY 2028.

Section 3
WEST WHITEWATER FUND REVENUE REQUIREMENTS AND FINANCIAL PLAN

This section of the report details the data NewGen relied upon and the assumptions we made to develop a four-year revenue requirement forecast for CVWD's West Whitewater Replenishment Fund.

Test Year Revenue Requirements

There are two cost categories that comprise the District's West Whitewater Fund annual revenue requirement: Operating and Maintenance (O&M) costs and Capital Costs (i.e., non-operating costs). Capital costs include debt service, pay-as-you-go (PAYGO) funded capital improvements. NewGen used CVWD's FY 2024 West Whitewater Fund Budget Model as the basis for the study's forecasts. The FY 2024 budget reflects a typical year of operation for the West Whitewater Replenishment Fund, and therefore no known and measurable adjustments to the FY 2024 budget were necessary to develop a pro forma Test Year. NewGen developed forecasts of FY 2025 through FY 2028 West Whitewater Replenishment Fund cost using reasonable estimates of cost increases for operating and capital expenditures.

Designated Reserve Policies

The CVWD Board has approved several financial policies that apply to the West Whitewater Fund. NewGen's study is predicated on maintaining compliance with these policies, which are as follows:

- **Operating Reserve:** 25% of annual operating expenses, less depreciation and capital outlay
- **Rate Stabilization Reserve:** 10% of annual rate revenues or operating expenses less the larger of depreciation and capital outlay
- **Capital Reserve:** Minimum of 25% of the average five-year, forward-looking, annual PAYGO CIP spending
- **Emergency Reserve:** 1.0% of net book value of assets
- **Motor Pool Reserve:** 5-year average of vehicle replacement costs
- **Debt Service Reserve:** One year of annual debt service

CVWD's policy is to maintain the reserves in these minimum amounts within the West Whitewater Fund. In any year in which the reserve goals are not met, then policy dictates that a five-year plan be developed to bring the fund back into compliance with each reserve policy. Table 3-1 shows the forecast designated reserve necessary to satisfy all the designated reserve policies.

Table 3-1
Forecasted Designated Reserve Policy

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Operating	$6,890,756	$5,786,927	$6,189,959	$6,420,979	$6,620,505
Rate Stabilization	$2,986,174	$2,346,920	$2,510,372	$2,604,064	$2,684,983
Capital	$57,285	$56,157	$53,514	$50,178	$47,764
Emergency	$619,000	$619,000	$619,000	$619,000	$619,000
Motor Pool	$69,577	$75,415	$75,300	$74,706	$74,348
Debt Service	$-	$-	$-	$-	$-
Total Designated Reserves	**$10,622,790**	**$8,884,420**	**$9,448,145**	**$9,768,927**	**$10,046,600**

As shown in the table above, the West Whitewater Replenishment Fund does not currently have any external debt service, and therefore does not have to meet a debt service reserve or coverage requirement throughout the study period.

Projected Pumping and Sales

The West Whitewater Replenishment Fund's revenues include RAC and non-potable water sales revenues as well as discretionary property taxes, investment income, and other miscellaneous sources.

According to CVWD's FY 2024 adopted budget, approximately 66 percent of the West Whitewater Replenishment Fund's revenues are generated by RACs with the additional 16 percent attributable to non-potable water sales. The remaining 18 percent from other revenue sources. Therefore, projected pumping and non-potable water sales volumes are key components of the analysis.

Table 3-2 shows the projected groundwater pumping and non-potable water sales for each year of the rate study period (FY 2024 through 2028). Annual pumping by the District's Domestic Water and irrigation pumping is expected to decrease over the study period as users transition from groundwater pumping to non-potable usage. As projected, pumping is expected to decrease from approximately 115,800 AF in FY 2024 to approximately 113,388 AF in FY 2028 even though growth in the Domestic Water utility's service area continues.

The District is continuing to shift some current irrigation pumpers to non-potable service. Non-potable water sales are expected to increase from 25,500 AF in FY 2024 to 28,000 AF in FY 2028.

RAC and Non-potable Revenues

Table 3-2 shows the study's forecasted pumping and sales of groundwater and non-potable water in Acre Feet (AF) that generate revenues for the West Whitewater Replenishment Fund.

Table 3-2
Projected Pumping and Sales (AF)

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Groundwater Pumping					
CVWD Domestic	65,650	66,307	66,970	67,640	67,641
Other Customers	54,350	52,693	51,530	50,360	49,859
Total West Pumping	**120,000**	**119,000**	**118,500**	**118,000**	**117,500**
Non-Potable Water Sales	**25,500**	**26,500**	**27,000**	**27,500**	**28,000**

In the above table, the reduction in Other Customer Pumping is due to the expansion of the Non-Potable Water system to additional golf courses which will reduce groundwater pumping. When combined, RAC and non-potable revenues account for approximately 82% of West Whitewater Replenishment Fund revenues. Table 3-3 presents the projected RAC and non-potable water (NPW) revenues based on the projected pumping and sales shown in Table 3-2.

Table 3-3
Rate and Surcharge Revenue under Proposed Rates

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Replenishment Assessment Charges	$19,844,400	$20,269,270	$20,789,640	$21,322,600	$21,869,100
Water Sales - Non-potable	$4,767,200	$5,065,873	$5,278,730	$5,499,436	$5,728,422
Total RAC and Non-potable Revenue	**$24,611,600**	**$25,335,143**	**$26,068,370**	**$26,822,036**	**$27,597,522**

Other Revenues

Table 3-4 shows projected non-rate revenues for the West Whitewater Fund which begin at approximately $5.7 Million in FY 2024 and decrease to approximately $3.4 Million by FY 2028. These discretionary, non-rate revenues allow the District to provide the West replenishment service at significantly less than the full cost of service.

NewGen's study forecast includes the following assumptions regarding non-rate revenues:

- Total Discretionary CVWD Property Taxes are projected to increase at an average annual rate of 3.0%, rising with property values.
- Charges for Non-Potable Services will not increase beyond their FY 2024 level.
- Investment Income is estimated to be 2.0% of fund balance in FY 2024 – FY 2028.
- Use of Restricted Funds is the use of restricted capacity fees to fund eligible CIP, namely the Palm Desert Ground Water Replenishment Facility Phase 2 project.

Table 3-4
Other West Whitewater Fund Revenues

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Property Taxes	$2,451,574	$2,525,121	$2,600,875	$2,678,901	$2,759,268
Charges for Services - NP	$5,000	$5,150	$5,305	$5,464	$5,628
Investment Income	$738,010	$254,002	$159,356	$188,729	$195,209
Use of Restricted Funds	$2,000,000	$5,500,000	$5,500,000	$-	$-
Other Income	$480,172	$480,172	$480,172	$480,172	$480,172
Total Other Revenues	**$5,674,756**	**$8,764,445**	**$8,745,708**	**$3,353,266**	**$3,440,276**

Projected Water Purchase Cost

This report refers to "purchases" of canal water from the District's Canal Fund for economy of prose, to avoid using constant statements such as "allocation of appropriate Canal Fund expenses" or "proportional cost burden of Canal Fund outlays" or similar statements. No sale of water from legally distinct entities is involved. Instead, the District allocates a portion of the cost to operate its canal water utility to the replenishment programs to reflect the benefit to those programs of the water the canal utility supplies. An analogous process is the way in which the District allocates General District capital costs to its various funds. These costs are assigned proportionately to CVWD's funds consistent with the benefit provided to each fund. The basis of that benefit may differ for different types of costs, but the concept is the same. Based on the information provided by the District, NewGen concludes that the allocation of canal utility costs to the replenishment programs is fair, reasonable, and consistent with industry practice.

The West Whitewater Fund purchases CVWD canal water for the purpose of groundwater replenishment at the Palm Desert Groundwater Replenishment (GRF) Facility and to serve non-potable water customers who use Canal water in-lieu of replenishment. The water purchased by the West Whitewater Fund is Class 2 Canal water and is subject to the charges included in Class 2 Canal rates plus the Quagga surcharge. The forecasted costs of canal water are included in the West Whitewater Fund revenue requirement.

The West Whitewater Fund also purchases water from the Rosedale-Rio Bravo Water Service District via an agreement with the Glorious Land Company (GLC). Per the agreement, the District has a contractual right to purchase a baseline of 9,500 AFY and an additional 7,000 AFY in supplemental water subject to availability. Due to this water being anticipated to only being available going forward in very wet years due to the impacts of hydrological shortages, the District funds this purchase using reserves when available. The District is expecting to receive 9,500 AF in FY 2024, and the West Whitewater Fund pays the commodity costs for this water source. No purchases beyond FY 2024 are included due to hydrological limitations, but the District will continue to fund future GLC purchases from reserves if the water becomes available.

The West Whitewater Fund may purchase 35,000 AF of Metropolitan Water District (MWD) annually and 15,000 AF of replenishment or canal water that is used to replenish the West Whitewater River Subbasin AOB. CVWD's State Water Project (SWP) Fund pays the transportation cost of the 35,000 AF of MWD water because it is transported via the SWP. The West Whitewater Fund pays the commodity costs of the MWD water.

The FY 2024 West Replenishment budget also includes $1.6 million to fund design expenses related to the Sites Reservoir project. In time, the costs of the Sites Reservoir project will affect the price the District pays to purchase water from SWP sources, including its exchange agreement with the Metropolitan Water District of Southern California.

Table 3-5
Projected Water Purchase Costs

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Non-Potable	$2,591,644	$3,270,770	$3,280,008	$3,289,545	$3,299,379
West RAC	$1,846,463	$1,856,421	$2,742,145	$2,750,118	$2,758,340
MWD and GLC	$7,387,801	$8,989,644	$9,290,264	$9,583,412	$9,886,800
GLC	$5,481,500	$ -	$ -	$ -	$ -
Sites Reservoir	$1,600,000	$ -	$ -	$ -	$ -
Total Projected Costs	**$18,907,408**	**$14,116,834**	**$15,312,417**	**$15,623,074**	**$15,944,519**

The District is only budgeting a one-time outlay of cash necessary in FY 2024 to help move the Sites Reservoir project along in the design phase. In the future, it is likely that the District's SWP Fund will pay for CVWD's Sites Reservoir costs, so long term costs are not included in the West Whitewater Fund forecast.

QSA Mitigation Payments

QSA mitigation payments are allocated to the East Whitewater and West Whitewater Replenishment Funds based on the amount of QSA water used in each AOB for groundwater replenishment or non-potable sales in lieu of replenishment. QSA Mitigation Payments end in fiscal year 2024. Table 3-6 shows the budgeted QSA Mitigation payments borne by the West Whitewater Fund over the forecast period.

Table 3-6
QSA Mitigation Payments

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
QSA Mitigation Payments	$1,915,893	$-	$-	$-	$-

Operating and Maintenance Costs

The day-to-day operating costs of CVWD's West Whitewater Fund are accounted for in the following categories:

- Salaries and Benefits
- Supplies and Services
- Utilities
- QSA Mitigation Payments[13]
- Water Purchases
- Capital Outlay

Table 3-7 below shows the five-year study period forecast of CVWD West Whitewater Fund operating expenses. Salaries and Benefits are escalated at 4.5% per year, Utilities are escalated at 8.0% per year, and Supplies and Services are escalated at 4.0% per year, each of which reflects a reasonable estimation of cost inflation over the study period. Capital outlay is forecast consistently with CVWD's CIP.

Table 3-7
Projected Operating Costs

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Salaries and Benefits	$4,370,029	$4,464,960	$4,673,550	$5,057,458	$5,290,151
Supplies and Services	$3,861,693	$4,016,161	$4,176,807	$4,343,879	$4,517,635
Utilities	$806,712	$871,249	$940,949	$1,016,225	$1,097,523
QSA Mitigation	$1,915,893	$-	$-	$-	$-
Water Purchases	$18,907,408	$14,116,834	$15,312,417	$15,623,074	$15,944,519
Capital Outlay	$14,100	$14,805	$15,546	$16,323	$17,139
Total Operating Costs	**$29,875,835**	**$23,484,009**	**$25,119,268**	**$26,056,959**	**$26,866,966**

Capital Improvement Costs

The most significant capital project to be completed during the study period is Phase 2 of the Palm Desert Ground Water Replenishment Facility.

The Palm Desert Groundwater Replenishment Project involves repurposing existing percolation ponds located north of CVWD's Water Reclamation Plant No. 10 (WRP10) and constructing detention basins within the Whitewater River Stormwater Channel south of WRP10 for the purpose of replenishing the groundwater basin using Colorado River water. The purpose of the project is to directly improve groundwater conditions within the West Whitewater River Subbasin Area of Benefit.

The total remaining cost of the project is $13.0 million, 100 percent of which will be funded with Supplemental Water Supply Charge (SWSC) reserves. In addition to this project, the CIP included in the financial forecast for this study includes allocations to the West Whitewater Fund of general district projects and motor pool capital purchases consistent with CVWD's adopted CIP.

Table 3-8
Projected Capital Improvement Plan

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Palm Desert GRF – Phase II	$2,000,000	$5,500,000	$5,500,000	$-	$-
General District	$211,310	$201,500	$202,500	$172,500	$10,000
Motor Pool	$40,383	$75,990	$78,270	$76,500	$76,740
Total Projected CIP	**$2,251,693**	**$5,777,490**	**$5,780,770**	**$249,000**	**$86,740**
SWSC Funded	$2,000,000	$5,500,000	$5,500,000	$-	$-
PAYGO Funded	$251,693	$277,490	$280,770	$249,000	$86,740

Debt Service

The West Whitewater Replenishment Fund owes one outstanding interfund debt obligation to repay a loan from CVWD's Domestic Fund that was used to pay for the Mid-Valley Pipeline (MVP). The Mid-Valley Pipeline, which benefits the recharge program, was built from 2007 to 2009 with reserves from the Domestic Water Fund. The District records a loan tracking the repayment of the Domestic Water Fund from the West Whitewater Replenishment Fund. CVWD's recharge programs benefit domestic water supplies both by providing water for domestic use and by displacing demand for potable supplies from golf courses and other irrigations, thus protecting other supplies to domestic water. In 2019, the Board restated the MVP loan and defined the repayment terms for the loan to be paid back over time.

In June of 2023, the CVWD Board finalized a 15-year repayment of the MVP loan. It has a set amount of annual principal repayment. Annual interest amounts will vary based on CVWD's average investment portfolio earnings, to which 10 basis points will be added. The projection appears as flat debt service based on an assumption of average interest rate over the projection period. The West Whitewater Fund is projected to pay $3.9 million annually through the end of the study period. Actual repayments will vary as the District's investment earnings change.

Table 3-9
Interfund Debt Payment

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
MVP Interfund Loan (to Domestic)	$3,945,387	$3,945,387	$3,945,387	$3,945,387	$3,945,387

Section 4
WEST RAC COST OF SERVICE ANALYSIS AND RATE DESIGN

The purpose of a cost-of-service analysis is to provide a rational basis for distributing the costs of West Whitewater replenishment service to each customer and rate component in proportion to the demands they place on the system and the benefits that they receive through their service. Since California Water Code requires that the RACs be uniform volumetric charges, the cost of service and rate design analysis includes two steps. The first step is determining the revenue requirements. The second step is to divide the calculated revenue requirement by the projected pumping demand to calculate rates.

Table 4-1 shows the revenue required from West Whitewater RAC for each year during the study period. Due to the application of discretionary, non-rate revenues, RAC rates are well below service cost in every year studied.

Table 4-1
West Whitewater RAC Rate Revenue Requirements

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Operating Expenses	**$29,875,835**	**$23,484,009**	**$25,119,268**	**$26,056,959**	**$26,866,966**
Contributions to Reserves	$ -	$1,500,000	$1,500,000	$400,000	$200,000
Debt Service	$3,945,387	$3,945,387	$3,945,387	$3,945,387	$3,945,387
Capital Expenses	$2,251,693	$5,777,490	$5,780,770	$249,000	$86,740
Total Revenue Requirement	**$36,072,915**	**$34,706,886**	**$36,345,425**	**$30,651,346**	**$31,099,093**
Less: Non-Potable Sales	($4,767,200)	($5,065,873)	($5,278,730)	($5,499,436)	($5,728,422)
Less: Other Revenues	($5,674,756)	($8,764,445)	($8,745,708)	($3,353,266)	($3,440,276)
Required from RACs	**$25,630,959**	**$20,876,568**	**$22,320,988**	**$21,798,644**	**$21,930,395**

Table 4-2 shows the calculation of the West Whitewater RAC for each year during the study period, which is the result of dividing the revenue required from the RACs by the projected pumping amount each year.

Table 4-2
West Whitewater RAC Calculation

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Revenue Required from RACs	$25,630,959	$20,876,568	$22,320,988	$21,798,644	$21,930,395
Projected Pumping (AF)	120,000	119,000	118,500	118,000	117,500
Calculated West Whitewater RAC ($/AF)	**$213.59**	**$175.43**	**$188.36**	**$184.73**	**$186.64**

Section 5
WEST WHITEWATER RAC CONCLUSION

The West Whitewater Replenishment Fund cost of service analysis shows that the rates proposed in the previous Proposition 218 Notice for the West Whitewater RACs adopted at a Public Hearing on June 2, 2021, adequately cover NewGen's calculated rate increases necessary to ensure that revenues are sufficient to meet costs and satisfy the required reserve policies.

The recommended rates and resulting fund balance forecast are summarized in Table 5-1.

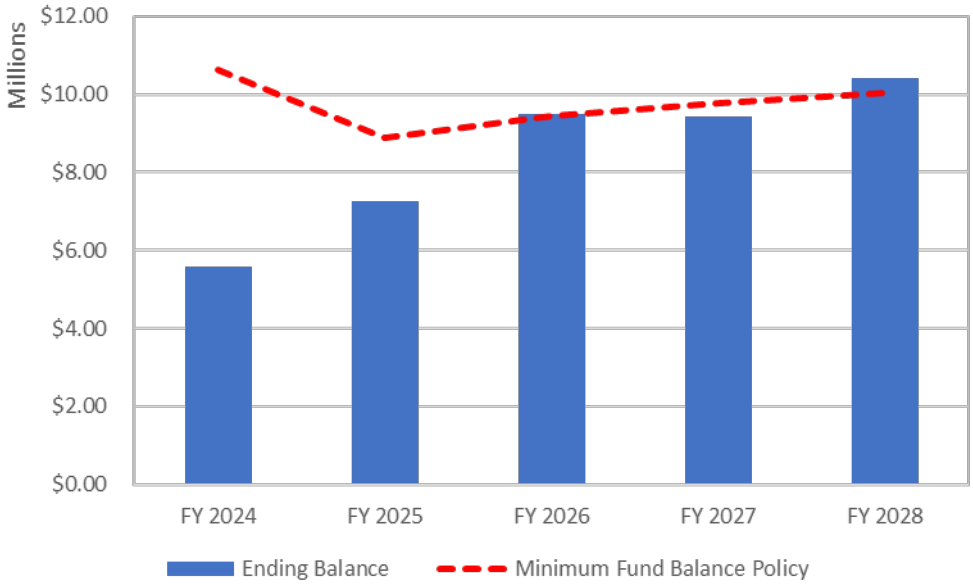
Table 5-1
Summary of Proposed Rates

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
NewGen COSS Rate	$213.59	$175.43	$188.36	$184.73	$186.64
NewGen Recommended RAC Increase		3.0%	3.0%	3.0%	3.0%
NewGen Recommended RAC	$165.37	$170.33	$175.44	$180.70	$186.12
Previous Prop 218 Rate[14]	$238.14	$285.76	$342.91	N/A	N/A
Over / (Under)	($72.77)	($115.43)	($167.47)	N/A	N/A
Ending Balance	**$5,575,118**	**$7,967,820**	**$9,436,472**	**$9,760,428**	**$10,099,133**
Minimum Fund Balance Policy	$10,622,790	$8,884,420	$9,448,145	$9,768,927	$10,046,600
Over / (Under) Policy	($5,047,672)	($916,599)	($11,673)	($8,499)	$52,533

NewGen's recommended rates are lower than the calculated cost of service rates shown in Table 5-1 in each year. The West Whitewater Replenishment Fund has sufficient reserves to fund the shortfall in revenue resulting from NewGen's recommended rates while still maintaining reserves above the minimum CVWD policy until FY 2028.

[14] The Proposition 218 notice in 2021 included RACs through FY 2026.

Figure 5-1 – West Whitewater Fund Balance Forecast at Recommended Rates



Section 6
MISSION CREEK SUBBASIN AREA OF BENEFIT

Mission Creek Subbasin

The Mission Creek Subbasin Management Area covers the entirety of the Mission Creek Subbasin. It was initially formed in April of 2003, when CVWD and the Desert Water Agency (DWA) entered into the Mission Creek Groundwater Replenishment Agreement. The Agreement's purpose was to facilitate cooperative management of groundwater replenishment in the area using State Water Project (SWP) water exchanged for Colorado River water for direct replenishment. The agreement was amended in 2004 to incorporate a Settlement Agreement between CVWD, DWA, and Mission Springs Water District. In 2015 CVWD and DWA executed a new Mission Creek Groundwater Replenishment Agreement to update and replace the 2003 agreement as amended.

Historical declines in groundwater levels in the Mission Creek Subbasin led to the determination that a management program was required to stabilize levels and prevent associated adverse effects, such as water-quality degradation. Groundwater levels, as measured in wells across the management area, have been a key metric in assessing the effectiveness of the GRP and are stabilized or rising. Average changes in groundwater levels since 2009 are positive across the management area, which is evidence that implementation of the groundwater replenishment program (GRP) has effectively abated historical overdraft. Continued artificial replenishment is necessary to maintain groundwater levels and prevent a return to overdraft in the future as pumping from the subbasin continues.

Four-Year Financial Forecast

The financial forecast is driven by the objective to have revenues meet annual revenue requirements in each forecast year. In any year in which that is not the case, the District may use fund balance (i.e., reserves) to meet the annual revenue requirement of the Fund. However, the Mission Creek Fund should satisfy CVWD's designated reserves policies at the end of each forecasted year. If the forecast results in any year in which the Mission Creek Fund balance violates any of CVWD's reserve policies, then CVWD must develop a plan to bring the Fund into compliance with all reserve policies within five years. The four-year financial forecast for the Mission Creek Fund is shown in Table 6-1. This study proposes drawing down reserves to avoid rate increases during the study period. Reserves are not anticipated to fall below policy minimums.

Table 6-1
Mission Creek Financial Forecast with Proposed Increases

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
RAC Revenue Increase	0%	0%	0%	0%	0%
Operating Revenues					
RAC Revenues	$594,933	$594,933	$594,933	$594,933	$594,933
Subtotal: RAC Revenues	**$594,933**	**$594,933**	**$594,933**	**$594,933**	**$594,933**
Other Revenues	$86,254	$111,737	$140,139	$138,728	$136,137
Total Revenues	**$681,187**	**$706,670**	**$735,072**	**$733,661**	**$731,070**
Operating Expenses	**$714,634**	**$745,519**	**$777,744**	**$811,369**	**$846,453**
Net Operating Revenues	**($33,447)**	**($38,849)**	**($42,672)**	**($77,708)**	**($115,383)**
Capital Expenses					
Capital Projects (PAYGO)	$-	$-	$-	$-	$-
Total Capital Expenses	**$-**	**$-**	**$-**	**$-**	**$-**
Contributions to Reserves	$-	$-	$-	$-	$-
Total Revenue Requirements	**$714,634**	**$745,519**	**$777,744**	**$811,369**	**$846,453**

Cost of Service Analysis and Rate Design

The purpose of the cost-of-service analysis is to provide a rational basis for distributing the costs of Mission Creek replenishment service to each customer and rate component in proportion to the demands they place on the system and the benefits that they receive through their service. Since California Water Code requires that the RACs be uniform volumetric charges, the cost of service and rate design analysis includes two steps. The first step is determining the revenue requirements. The second step is to divide the calculated revenue requirement by the projected pumping demand to calculate rates.

Table 6-2 shows the revenue required from Mission Creek RACs for each year during the study period, noting application of discretionary non-rate revenues to reduce RACs below the full cost of service.

Table 6-2
Mission Creek RAC Rate Revenue Requirements Forecast

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Operating Expenses	**$714,634**	**$745,519**	**$777,744**	**$811,369**	**$846,453**
Capital Expenses	-	-	-	-	-
Contributions to Reserves	-	-	-	-	-
Total Revenue Requirements	**$714,634**	**$745,519**	**$777,744**	**$811,369**	**$846,453**
Less: Non-Potable Sales	-	-	-	-	-
Less: Other Revenues	($86,254)	($111,737)	($140,139)	($138,728)	($136,137)
Revenue Required from RACs	**$628,380**	**$633,782**	**$637,605**	**$672,641**	**$710,316**

Table 6-3 shows the calculation of the Mission Creek RAC for each year during the study period. This is simply the revenue required from the RACs divided by the projected pumping amount each year.

Table 6-3
Forecasted Mission Creek RAC Calculation

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Revenue Required from RACs	$628,380	$633,782	$637,605	$672,641	$710,316
Projected Pumping (AF)	4,390	4,390	4,390	4,390	4,390
Cost of Service Mission Creek RAC ($/AF)	**$143.14**	**$144.37**	**$145.24**	**$153.22**	**$161.80**

Mission Creek Conclusion

NewGen is not recommending any increase to the Mission Creek RAC over the forecast period. The recommended rates are shown in Table 6-4.

Table 6-4
Summary of Proposed Mission Creek RAC

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
NewGen COSS Rate	$143.14	$144.37	$145.24	$153.22	$161.80
NewGen Recommended Rate Increase		0.0%	0.0%	0.0%	0.0%
NewGen Recommended RAC	$135.52	$135.52	$135.52	$135.52	$135.52
Ending Fund Balance	**$3,724,577**	**$3,685,728**	**$3,643,056**	**$3,565,348**	**$3,449,965**
Minimum Fund Balance Policy	$254,999	$265,669	$276,802	$288,418	$300,538

The Mission Creek Fund cost of service analysis shows that, while the currently effective Mission Creek RAC will not generate revenue to satisfy annual revenue requirements in any forecasted year, the Mission Creek Fund has sufficient reserves to both supplement RAC revenues to meet annual revenue requirements and to maintain compliance with CVWD minimum fund balance policies in each forecasted year. Therefore, NewGen is not recommending any changes to the Mission Creek RAC over the study period.

NewGen Strategies & Solutions

THANK YOU!

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