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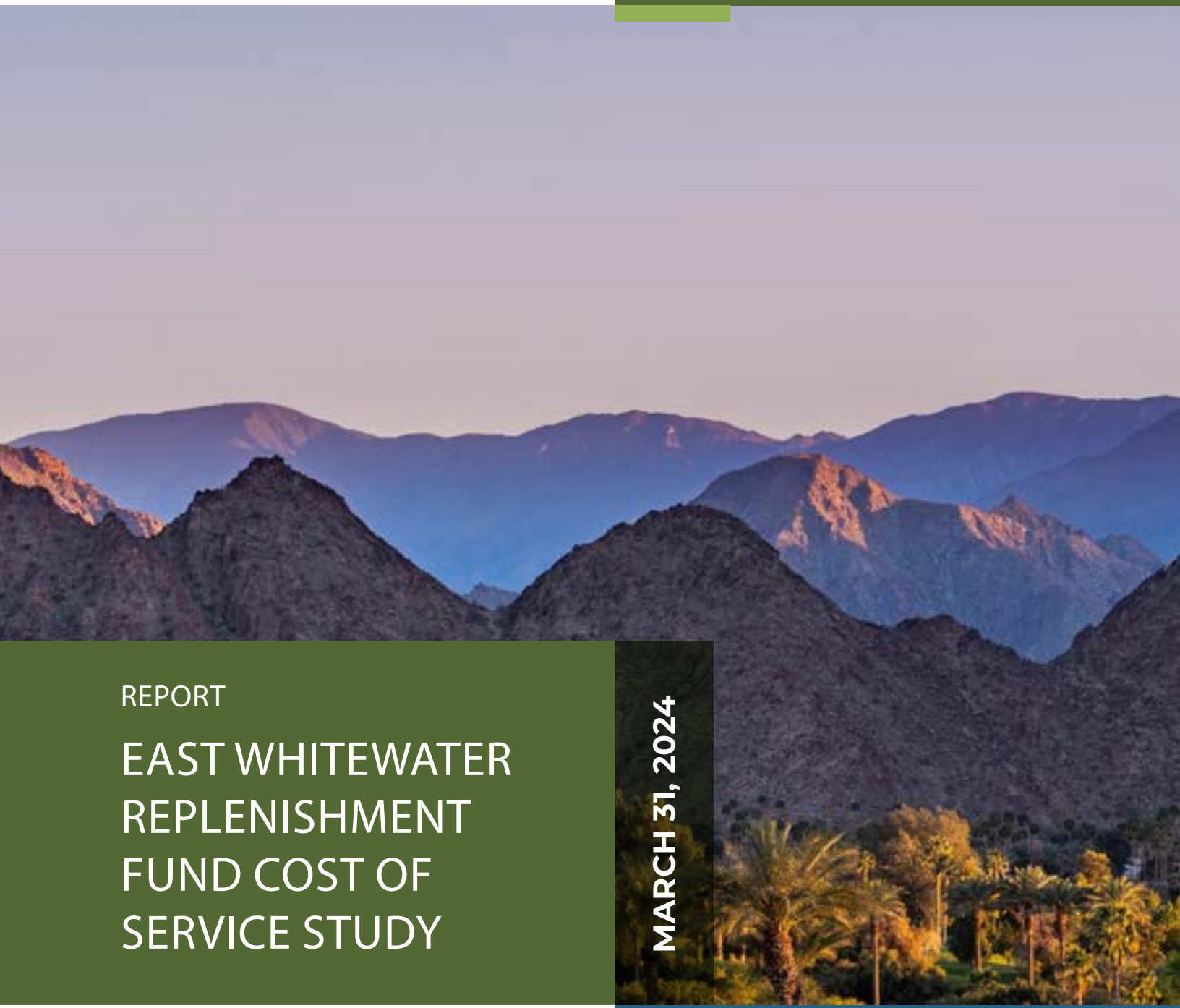


REPORT

EAST WHITEWATER REPLENISHMENT FUND COST OF SERVICE STUDY

MARCH 31, 2024

Prepared for:
Coachella Valley Water District
75515 Hovley Lane East
Palm Desert, CA 92211

TABLE OF CONTENTS

List of Tables

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 East Whitewater Replenishment Fund (East Whitewater Fund). The purpose of the study was twofold. First, NewGen was tasked with validating (or not) the methodology supporting the justification for CVWD's currently effective Fiscal Year (FY) 2024 East Whitewater Groundwater Replenishment Assessment Charges (RACs). Second, NewGen was tasked to provide a four-year financial forecast, cost of service analysis, and rate recommendations for East Whitewater RACs for FY 2025 through 2028.

Validation of East 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 an engineer's report detailing the distinct facilities and hydrology of the three AOBs. Furthermore, NewGen validated that the FY 2024 East Whitewater RACs follow Proposition 218 requirements, specifically that FY 2024 East RACs are below the budgeted cost of service of the Fund in FY 2024. In particular, it is NewGen's professional opinion that the data supporting the distinction and delineation of the three areas of benefit is sufficiently established that industry standard ratemaking practices allow the District to distinguish them. Indeed, a failure to distinguish them would invite claims of cross-subsidies among beneficiaries of the three replenishment programs.

Four-Year Financial Forecast

The financial forecast is driven by the objective to have revenues meet annual revenue requirements in each forecasted 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 East 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 East 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. In addition, the East Whitewater Fund must meet the contractual requirement of maintaining a minimum debt service coverage ratio (DSCR) of 1.25, meaning that net operating revenues (i.e., total operating revenues less operating expenses) must be at least 1.25 times annual debt service in any forecast year.

The East Whitewater Fund is in a unique position in FY 2024 that necessitated the development of a FY 2024 pro forma Test Year that includes known and measurable adjustments to CVWD's adopted FY 2024 budget. Specifically, curtailment efforts arising from an interstate negotiation involving Colorado River supplies at the Thomas E. Levy facility (East RAC) have resulted in lower forecasted pumping expenses (quantified in the O&M category "utilities"), operating costs (i.e., contract services/maintenance at the facility), and water purchase expense (Colorado River water purchased from the Canal fund) since CVWD is not replenishing 35,000 AF of water per calendar year for CY 2023, 2024, and 2025. This will, based on CVWD's fiscal calendar, also impact FY 2026. This cost of service study includes known and measurable adjustments to the FY 2024 East Whitewater Fund budget to reflect a more typical annual expense profile of the Fund, to achieve a reasonable and stable rate projection for the Fund.

The four-year financial forecast for the East Whitewater Fund is shown in Table E-1. In every year rates cover significantly less than the cost of service due to application of the District's discretionary non-rate revenues, such as tax proceeds.

Table E-1
Financial Forecast

	FY 2024 Test Year	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	$7,805,160	$7,555,660	$7,436,990	$7,462,665	$7,686,630
Subtotal: RAC Revenue	**$7,805,160**	**$7,555,660**	**$7,436,990**	**$7,462,665**	**$7,686,630**
Non-Potable Sales	$422,163	$430,647	$448,918	$458,107	$467,575
Other Revenues	$6,900,934	$6,181,655	$4,955,235	$6,563,071	$7,802,914
Total Revenues	**$15,128,257**	**$14,167,963**	**$12,841,143**	**$14,483,843**	**$15,957,119**
Operating Expenses	**$10,695,816**	**$7,776,536**	**$9,181,364**	**$10,526,539**	**$10,879,935**
Net Operating Revenues	**$4,432,441**	**$6,391,427**	**$3,659,779**	**$3,957,304**	**$5,077,184**
Debt Service					
Existing Bond Debt Service	$1,890,085	$1,890,085	$1,890,085	$1,890,085	$2,860,085
Projected Debt Service	$ -	$ -	$ -	$ -	$ -
Total Debt Service	**$1,890,085**	**$1,890,085**	**$1,890,085**	**$1,890,085**	**$2,860,085**
Capital Grants	$ -	$ -	$ -	$ -	$ -
Capital Expenses					
Capital Projects (PAYGO)	$1,939,879	$1,841,320	$874,360	$102,000	$102,320
District Wide Projects	$247,310	$241,500	$247,500	$172,500	$10,000
Total Capital Expenses	**$2,187,189**	**$2,082,820**	**$1,121,860**	**$274,500**	**$112,320**
Loan Proceeds	($100,000)	$ -	$ -	$ -	$ -
Contributions to Reserves	$750,000	$750,000	$ -	$ -	$ -
Total Revenue Requirements	**$15,423,090**	**$12,499,441**	**$12,193,309**	**$12,691,124**	**$13,852,340**

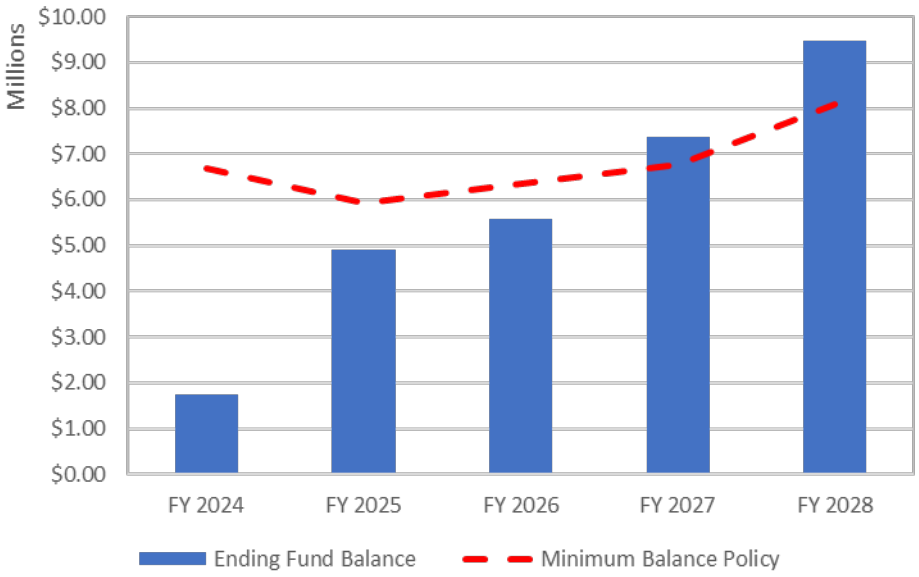
East Whitewater Fund Balance Forecast

The East Whitewater Fund balance is broken down annually in Table E-2.

Table E-2
East Whitewater Fund Balance Forecast

	FY 2024 Budget	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Beginning Balance	**$ -**	**$1,750,330**	**$4,918,852**	**$5,566,686**	**$7,359,404**
Total Revenues	$15,128,257	$14,167,963	$12,841,143	$14,483,843	$15,957,119
Revenue Requirement	$15,423,090	$12,499,441	$12,193,309	$12,691,124	$13,852,340
Less: Reserve Contributions	($750,000)	($750,000)	$ -	$ -	$ -
Total Operating Expenses	$14,673,090	$11,749,441	$12,193,309	$12,691,124	$13,852,340
Contributions to Reserves	$750,000	$750,000	$ -	$ -	$ -
Increase / (Decrease)	$1,205,167	$3,168,522	$647,834	$1,792,719	$2,104,779
Ending Balance	**$1,205,167**	**$4,918,852**	**$5,566,686**	**$7,359,404**	**$9,464,183**
Minimum Fund Balance Policy	$6,682,885	$5,940,325	$6,343,845	$6,765,650	$8,097,922
Over / (Under) Policy	($5,477,718)	($1,021,473)	($777,159)	$593,754	$1,366,262

Figure E-1 – East 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 East Whitewater RACs

	FY 2024 Adopted	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
East RAC Increase		3.0%	3.0%	3.0%	3.0%
Proposed East Whitewater RAC ($/AF)	$72.27	$74.44	$76.67	$78.97	$81.34

Section 1
EVALUATION OF EAST WHITEWATER FY 2024 RAC

NewGen's evaluation of CVWD's Replenishment Assessment Enterprises – Three Areas of Benefit involved two items related to the justification of CVWD's various 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.[1] 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 between classes of customers who demonstrate different demand patterns between their respective

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

average and peak demands. Our evaluation of CVWD's justification for its distinction between AOBs is rooted in these fundamental 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?[2] 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.[3] 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 based on its professional opinion that:

> *"[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.[4] 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.[5]

There may be an argument that the above statement is made based on an arbitrary[6] distinction between the East and West AOB, and that the application of another distinction between the AOBs would garner different results, and therefore call into question the reasonableness of both NBS and NewGen's conclusions. The NBS Memo addresses this issue with a discussion regarding the reasonableness of the East/West boundary itself. From a rate-making perspective, this 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.

[2] NBS Memo at p.2.
[3] NBS Memo at p. 3.
[4] NBS Memo at p 12, Figure 3.
[5] 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.
[6] 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 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."[7] 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 reasonable 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.[8] 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 in their memo to support their conclusions.[9] 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:

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

- **East Whitewater:** Artificial recharge of Colorado River water at the Thomas E. Levy (TEL) Groundwater Replenishment Facility (GRF).[10] *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.[11] *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 East Whitewater RAC

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 East Whitewater RAC, the following table summarizes NewGen's results relative to the FY 2024 RACs for these two AOBs.

Table 1-1
Summary of FY 2024 East RAC Cost of Service

	East Whitewater
FY 2024 Adopted RAC	$72.27
NewGen Cost of Service RAC	$75.23
Difference (Adopted – COS)	($2.96)

For the East Whitewater RAC, NewGen determined that the adopted FY 2024 rates are below the justified cost of service in the East Whitewater AOB. The following sections of this report detail NewGen's recommended RAC for the East AOB given the forecasted expenses of the AOB and CVWD's fund balance policies.

[10] 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.*

[11] 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
EAST WHITEWATER RIVER SUBBASIN AREA OF BENEFIT

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

East Whitewater River Subbasin Area of Benefit

Historical declines in groundwater levels in the eastern portion of the Whitewater River Subbasin led the District to begin direct replenishment in the East Whitewater River Subbasin AOB in 1997. Direct replenishment of the East Whitewater River Subbasin AOB is done via the artificial recharge of Colorado River water at the Thomas E. Levy Groundwater Replenishment Facility (GRF). The District also delivers imported water from the Coachella Canal to meet agricultural and golf course irrigation needs in the East Valley. The groundwater levels across most of the East Whitewater River Subbasin AOB has risen significantly since 2005, showing that the implementation of artificial replenishment has been effective at mitigating historical overdraft.

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 East 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 unless otherwise stated.[12] 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.

[12] Curtailment requirements are tracked on a calendar year basis. For the simplicity of presentation of our analysis, the impacts of curtailment on East Whitewater Replenishment pumping are shown as on a fiscal year basis.

Section 3
REVENUE REQUIREMENTS AND FINANCIAL PLAN

This section of the report details the data and assumptions relied upon to develop a four-year revenue requirement and financial plan for CVWD's East Whitewater Replenishment Fund.

Test Year Revenue Requirements

There are two cost categories that comprise the District's East Whitewater Fund annual revenue requirement: Operating and Maintenance (O&M) costs and Capital Costs (i.e., non-operating costs). Capital costs include debt service and pay-as-you-go (PAYGO) funded capital improvements. NewGen used CVWD's FY 2024 East Whitewater Fund Budget Model as the basis for the study's forecasts.

Known and Measurable Adjustments

The FY 2024 budget reflects an atypical year of operation for the East Whitewater Replenishment Fund, and therefore NewGen made several known and measurable adjustments to the FY 2024 East Whitewater Fund budget to develop a pro forma Test Year that more accurately reflects the typical financial operation of the East Whitewater Fund. A Test Year is a 12-month representation of the typical operation of a utility. A "pro forma" Test year is a combination of a historical and projected timeframe that begins with historical costs and then adjusts only for "known and measurable" costs or changes.[13]

The East Whitewater Fund is in a unique position in FY 2024 that necessitated the development of a FY 2024 pro forma Test Year that includes known and measurable adjustments to CVWD's adopted FY 2024 budget. Specifically, curtailment efforts at the Thomas E. Levy facility arising from interstate negotiations regarding reduced supplies of Colorado River water have resulted in lower pumping expenses (i.e., utilities), operating costs (i.e., contract services/maintenance at the facility), and water purchase expense (water purchased from the Canal fund) since CVWD is not replenishing 35,000 AF of water per calendar year for CY 2023, 2024, and 2025. Based on CVWD's fiscal calendar, this also impacts FY 2026. NewGen's cost of service study includes known and measurable adjustments to the FY 2024 East Whitewater Fund budget to reflect a more typical annual expense profile of the Fund, achieving a reasonable and stable rate projection for the Fund.

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 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.

[13] AWWA Manual M1: Principles of Water Rates, Fees and Charges (7th Edition) at p. 12

To develop an appropriate Test Year, NewGen relied upon actual FY 2022 East Whitewater Fund operating expenses in the utilities, supplies and services, and water purchases categories as benchmarks for typical system financial performance. These years represent a more representative operational situation and are therefore a reasonable basis to set rates that maintain financial stability within the East Whitewater Fund. Table 3-1 shows the known and measurable adjustments made to the FY 2024 budget to arrive at a reasonable pro forma Test Year. Setting rates based on the atypically low costs of FY 2024 would encourage overuse of the groundwater replenished by the East AOB program and invite rate shock when costs return to normal when the Colorado River curtailment program ends.

Table 3-1
FY 2024 Known and Measurable Adjustments

	FY 2024 Budget	Known and Measurable Adjustments	FY 2024 Test Year
Salaries and Benefits	$2,175,582	$-	$2,175,582
Supplies and Services	$1,444,552	$68,846	$1,513,398
Utilities	$94,297	$1,410,996	$1,505,293
QSA Mitigation Payments	$1,369,312	$-	$1,369,312
Water Purchases	$442,911	$3,678,070	$4,120,981
Capital Outlay	$11,250	$-	$11,250
Total Operating Costs	**$5,537,904**	**$5,157,912**	**$10,695,816**

NewGen developed forecasts of FY 2025 through FY 2028 East Whitewater Replenishment Fund costs using reasonable estimates of cost increases for operating and capital expenditures based on the FY 2024 Pro Forma Test Year.

Designated Reserve Policies

The CVWD Board has approved several financial policies that apply to the East 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 East 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 3-2 shows the forecasted designated reserve necessary to satisfy all the designated reserve policies.

Table 3-2
Forecasted Designated Reserve Policy Forecast

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Operating	$2,296,912	$1,914,589	$2,260,839	$2,592,373	$2,679,351
Rate Stabilization	$1,068,457	$776,472	$916,896	$1,051,351	$1,086,626
Capital	$288,934	$193,262	$102,673	$59,415	$57,573
Emergency	$576,000	$593,400	$601,100	$601,100	$601,100
Motor Pool	$89,976	$99,995	$99,730	$98,804	$98,165
Debt Service	$2,362,606	$2,362,606	$2,362,606	$2,362,606	$3,575,106
Total Designated Reserves	**$6,682,885**	**$5,940,325**	**$6,343,845**	**$6,765,650**	**$8,097,922**

Oasis Project

The District is currently in the process of completing the Oasis In-Lieu Recharge – Phase II project (Oasis Project). The Oasis Project involves the construction of a Canal water distribution system in the Oasis area of the AOB to provide imported Colorado River water for agricultural irrigation on the Oasis slope in-lieu of groundwater production. The project is designed to ultimately achieve a reduction of 32,000 AFY of groundwater production.

Projected Pumping and Sales

Under existing rates, approximately 57.80% of the East Whitewater Replenishment Fund's revenues are generated by RACs with an additional 3.13% attributable to non-potable water sales, thus, the projected pumping and 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 2025 through FY 2028). As shown, annual pumping by the District's Domestic Water system and pumping by other entities is expected to decrease over the study period as irrigation users in the Oasis service area transition from groundwater pumping to Canal water usage. As projected, pumping is expected to decrease from approximately 108,000 AF in FY 2023 to approximately 94,500 in FY 2028.

Non-potable water sales are expected to increase from approximately 4,600 AF annually to 4,700 AF annually over the study period. Non-potable users will include those receiving a blend of canal and recycled water.

Table 3-3
Projected Pumping and Sales (AF)

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Groundwater Production					
CVWD Domestic	**24,242**	**23,596**	**23,656**	**23,717**	**23,717**
Other Customers	83,758	77,904	73,344	70,783	70,783
Total East Production	**108,000**	**101,500**	**97,000**	**94,500**	**94,500**
Non-Potable Water Sales	**4,600**	**4,600**	**4,700**	**4,700**	**4,700**

RAC and Non-potable Revenues

Table 3-4 presents the projected RAC and non-potable revenues and the projected sales shown in Table 3-3.

Table 3-4
RAC and Non-Potable Revenues

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Replenishment Assessment Charges	$7,805,160	$7,555,660	$7,436,990	$7,462,665	$7,686,630
Water Sales - Non-potable	$422,163	$430,647	$448,918	$458,107	$467,575
Total RAC and Non-potable	**$8,227,323**	**$7,986,307**	**$7,885,908**	**$7,920,772**	**$8,154,205**

Other Revenues

Table 3-5 shows projected non-rate revenue for the East Whitewater Fund. These non-rate revenues are expected to produce approximately $6.9 million in FY 2024 and approximately $7.8 million by FY 2028 due to an increase in Property Taxes and Investment Income. These revenues make possible RAC rates substantially below service cost.

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

- Total Discretionary CVWD Property Taxes are projected to increase 5.2% over the forecast period.
- Investment Income is projected to decrease in FY 2025 and recover by FY 2027. This is the result of a decline in reserve levels.

Table 3-5
Projected Other Revenues

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Allocated Property Tax (Discretionary)	$6,623,771	$6,036,976	$4,750,000	$6,250,000	$7,455,113
Investment Income	$252,163	$119,679	$180,235	$288,071	$322,801
Other Revenue	$25,000	$25,000	$25,000	$25,000	$25,000
Total Other Revenues	**$6,900,934**	**$6,181,655**	**$4,955,235**	**$6,563,071**	**$7,802,914**

Projected Water Purchase Cost

Canal water is "purchased"[14] by the East Whitewater Fund for groundwater replenishment at the Thomas E. Levy GRF to serve non-potable water customers. The water purchased by the East Whitewater Fund is Class 2 Canal water and is subject to the charges included in Class 2 Canal rates plus the Quagga surcharge. The East Whitewater Fund also purchases about 2,100 AF of non-potable water from Water Reclamation Plant 7 (WRP 7). This amount is forecast to increase to 2,500 AF by FY 2028.

Under the Lower Colorado Conservation Program, the District agreed to participate in several voluntary, compensated efforts in partnership with the U.S. Bureau of Reclamation (USBR) to conserve water volume in Lake Mead. In calendar year 2022, CVWD conserved 9,083 AF of water that would have otherwise been used for groundwater replenishment at the Thomas E. Levy GRF. Over the next three calendar years, CVWD has agreed to conserve up to 105,000 AF at a rate of approximately 35,000 AF per year to continue this effort while still monitoring and ensuring appropriate long-term groundwater levels. Table 3-6 shows the forecasted costs of groundwater replenishment and non-potable water. Note that the FY 2024 costs include the Test Year adjustment discussed previously.

Table 3-6
Projected Water Purchases

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Thomas E. Levy Facility	$3,889,572	$1,975,500	$3,081,680	$4,084,060	$4,096,270
WRP 7	$231,409	$278,216	$279,002	$279,813	$280,650
Total Projected Water Purchases	**$4,120,981**	**$2,253,716**	**$3,360,682**	**$4,363,873**	**$4,376,920**

Quantification Settlement Agreement (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-

[14] See explanatory note above.

potable sales in lieu of replenishment. QSA Mitigation Payments end in fiscal year 2024, as the District took advantage of an early payoff option.

Table 3-7
QSA Mitigation Payments

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
QSA Mitigation Payments	$1,369,312	$-	$-	$-	$-

Operating and Maintenance Costs

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

- Salaries and Benefits
- Supplies and Services[15]
- Utilities
- QSA Mitigation Payments
- Water Purchases
- Capital Outlay

Table 3-8 below shows the five-year study-period forecast of CVWD East Whitewater Fund operating expenses, as adjusted for known and measurable costs. 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 in a manner consistent with CVWD's CIP.

Table 3-8
Projected Operating Costs

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Salaries and Benefits	$2,175,582	$2,311,356	$2,415,612	$2,551,038	$2,670,943
Supplies and Services	$1,513,398	$1,573,934	$1,636,891	$1,702,367	$1,770,462
Utilities	$1,505,293	$1,625,716	$1,755,774	$1,896,236	$2,047,935
QSA Mitigation Payments	$1,369,312	$-	$-	$-	$-
Water Purchases	$4,120,981	$2,253,716	$3,360,682	$4,363,873	$4,376,920
Capital Outlay	$11,250	$11,813	$12,405	$13,025	$13,676
Total Operating Costs	**$10,695,816**	**$7,776,536**	**$9,181,364**	**$10,526,539**	**$10,879,935**

Capital Improvement Costs

The CIP included in the financial forecast includes projects specific to the East Whitewater Fund as well as allocations to the East Whitewater Fund of general district projects and motor pool capital purchases.

[15] Supplies and Services offset by an annual Pass-Through contra expense of $135,000.

General district projects are those that are related to CVWD in total and not related to a particular fund. For example, improvements to CVWD's administrative offices would be a general district project, the cost of which would be distributed to the various CVWD funds to be collected in rates.

The Oasis In-Lieu Recharge Project that will be complete in FY 2024 is an in-lieu replenishment/source-substitution project that was identified in the 2010 Coachella Valley Water Master Plan (CVWMP) Update. The project involves the construction of a canal water distribution system in the Oasis area of the East AOB to provide imported Colorado River water for agricultural irrigation on the Oasis slope in-lieu of groundwater production. The Project is designed to reduce groundwater production in the area by approximately 32,000 AFY.

Phase II of the Oasis project was completed in December 2023. The project included the construction of approximately 17.5 miles of a pipeline of various diameter and underground facilities, including ancillary excavation, rock removal, trenching, shoring, dewatering, and surface restoration. Also included in the project was the construction of four pump stations with furnishings and installation of vertical turbine pumps and backup generators, construction of four reservoirs, and the installation of electrical control devices.

Table 3-9
Projected CIP Costs

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Oasis In-Lieu Recharge Phase II	$100,000	$-	$-	$-	$-
East CIP	$1,800,000	$1,740,000	$770,000	$-	$-
General District	$247,310	$241,500	$247,500	$172,500	$10,000
Total Projected CIP	**$2,147,310**	**$1,981,500**	**$1,017,500**	**$172,500**	**$10,000**
PAYGO Funded	$2,047,310	$1,981,500	$1,017,500	$172,500	$10,000
Debt Funded	$100,000	$-	$-	$-	$-

The Oasis In-Lieu Recharge Phase II project will be funded with debt as discussed in the next section. The remaining projects will be funded on a PAYGO basis.

Interfund Debt Payment

The bonds payable by the East Whitewater Fund (COP 2021A and 2021B) are payable by the East Whitewater Fund with the caveat that CVWD added a guarantee that there would be a minimum allocation of discretionary property tax transferred into the debt service fund to cover up to the full amount of debt service if there were no other funds (i.e. RAC charges) to fund the debt service. It has been CVWD's practice to ensure that enough discretionary property taxes have been allocated to cover the debt service as to not necessitate a rate increase, as the property tax inherently becomes a revenue to East Whitewater Fund as would any allocated property tax. That is, the District achieves stable and predictable rates for those who benefit from the East replenishment program by application of discretionary resources.

Table 3-10
Interfund Debt Payment

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
COP 2021 A	$1,879,150	$1,879,150	$1,879,150	$1,879,150	$2,039,150
COP 2021 B	$10,935	$10,935	$10,935	$10,935	$820,935
Total Interfund Debt Payment	**$1,890,085**	**$1,890,085**	**$1,890,085**	**$1,890,085**	**$2,860,085**

Section 4
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 East 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 the California Water Code requires that the RACs are 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 East Whitewater RAC for each year during the study period.

Table 4-1
East Whitewater RAC Rate Revenue Requirements

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Operating Expenses	**$10,695,816**	**$7,776,536**	**$9,181,364**	**$10,526,539**	**$10,879,935**
Contributions to Reserves	$750,000	$750,000	$-	$-	$-
Interfund Debt Service	$-	$-	$-	$-	$-
Existing Debt Service	$1,890,085	$1,890,085	$1,890,085	$1,890,085	$2,860,085
Capital Expenses	$2,087,189	$2,082,820	$1,121,860	$274,500	$112,320
Total Revenue Requirements	**$15,423,090**	**$12,499,441**	**$12,193,309**	**$12,691,124**	**$13,852,340**
Less: Non-Potable Sales	($422,163)	($430,647)	($448,918)	($458,107)	($467,575)
Less: Other Revenues	($6,875,934)	($4,291,570)	($3,065,150)	($4,672,986)	($4,942,829)
Revenue Required from RACs	**$8,124,993**	**$7,777,223**	**$8,679,241**	**$7,560,031**	**$8,441,936**

Table 4-2 shows the calculation of the East 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. Again, the use of discretionary, non-rate revenues allows the District to offer the East replenishment service at less than its cost.

Table 4-2
East Whitewater RAC Calculation

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Revenue Required from RACs	$8,124,993	$7,777,223	$8,679,241	$7,560,031	$8,441,936
Projected Pumping (AF)	108,000	101,500	97,000	94,500	94,500
Calculated East Whitewater RAC ($/AF)	**$75.23**	**$76.62**	**$89.48**	**$80.00**	**$89.33**

Section 5
RECOMMENDED EAST WHITEWATER RACS

NewGen's East Whitewater Replenishment Fund cost of service analysis shows that the rates published in CVWD's previous Proposition 218 Notice[16] for the East Whitewater RACs adopted at a Public Hearing on June 2, 2021, are above NewGen's calculated rate increases. NewGen's recommended increases are necessary to ensure that revenues are sufficient to meet costs and comply with the required reserve policies in each year.

Table 5-1
Summary of Proposed East Whitewater RAC Rates

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
NewGen COSS Rate	$75.23	$76.62	$89.48	$80.00	$89.33
NewGen Recommended Rate Increase		3.0%	3.0%	3.0%	3.0%
NewGen Recommended RAC	$72.27	$74.44	$76.67	$78.97	$81.34
Previous Prop 218 Rate[17]	$81.51	$83.96	$86.48		
NewGen vs. Previous Prop 218 Over / (Under)	($9.24)	($9.52)	($9.81)		
Ending East Whitewater Fund Balance		**$4,918,852**	**$5,566,686**	**$7,359,404**	**$9,464,183**
Minimum Fund Balance Policy		$5,940,325	$6,343,845	$6,765,650	$8,097,922
Over / (Under) Policy		($1,021,473)	($777,159)	$593,754	$1,366,262

The District is well-advised to meet its minimum fund balance policies, and therefore it is proper to increase East Whitewater RACs. Because the East Whitewater Fund is below the minimum reserve level required by CVWD policy, breakeven cost of service rates would not be sufficient to sustain the fund. It is therefore appropriate to increase East RAC revenue to meet the reserve policies of the District.

Debt Service Coverage Ratio Forecast

Because this debt service is payable by the East Whitewater Fund, the Fund must meet the contractual requirement of maintaining a minimum debt service coverage ratio (DSCR) of 1.25, meaning that net operating revenues (i.e., total operating revenues less operating expenses) must be at least 1.25 times annual debt service in any forecast year. Table 5-2 shows the forecasted DSCR under NewGen's recommended East RACs over the forecast period.

[16] The District voluntarily complies with Proposition 218 for these charges while maintaining its position that only Proposition 26, which is less demanding of rakemakers, applies.
[17] The Proposition 218 notice in 2021 included RACs through FY 2026.

Table 5-2
Debt Service Coverage Ratio Forecast

	FY 2024 Test Year	FY 2025 Forecast	FY 2026 Forecast	FY 2027 Forecast	FY 2028 Forecast
Total Operating Revenues	$15,128,257	$14,167,963	$12,841,143	$14,483,843	$15,957,119
Less: Operating Expenses	($10,695,816)	($7,776,536)	($9,181,364)	($10,526,539)	($10,879,935)
Net Operating Revenues	**$4,432,441**	**$6,391,427**	**$3,659,779**	**$3,957,304**	**$5,077,184**
Annual Debt Service	$1,890,085	$1,890,085	$1,890,085	$1,890,085	$2,860,085
DSCR at Recommended RACs	2.35	3.38	1.94	2.09	1.78

NewGen's recommended rates achieve both compliance with CVWD's minimum fund balance policies and the contractual requirement to maintain debt service coverage.

NewGen Strategies & Solutions

THANK YOU!

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