Black Canyon City
Water Improvement District
Drinking Water Rate Study

Rural Community Assistance Corporation

Contents

Executive Summary

Study Purpose

This rate study evaluates Black Canyon City Water Improvement District's (BCCWID) current financial condition and identifies the rate adjustments necessary to ensure long-term operational stability, infrastructure sustainability, and preparedness for potential arsenic treatment system upgrades.

The study uses FY2024 financial data as well as projected 2025 and 2026 financial goals to develop a structured, phased planning schedule aligned with FY27, FY30, FY33, and FY36.

Current Financial Condition

The District's total reserve-type balances increased between FY2022 and FY2024; however, unrestricted operating liquidity declined during the same period. Capital reserves and the arsenic sinking fund have grown, reflecting preparation for future infrastructure investments.

At the same time, operating costs continue to increase due to inflation, system maintenance needs, and regulatory compliance requirements. Without phased rate adjustments, operating flexibility will continue to tighten.

Scenario Overview

The study evaluated multiple scenarios as requested by the District.

Scenario 1 – Long-Term Sustainability: No Major Capital Improvement Plan (CIP)

Provides sufficient revenue to:

- Maintain operations
- Fund routine asset renewal
- Preserve reserve adequacy

Scenario 2 – Arsenic Treatment Capital Improvements

Evaluates both retrofit and centralized treatment options using:

- Pay-go financing
- Full debt financing
- 50% grant / 50% debt financing

The table below shows the initial recommended rate base increase for the upcoming fiscal year (FY27). Based on an estimated Median Household Income between $40,000-$50,000, the baseline FY27 residential bill under Scenario 1 represents approximately 1.9% of MHI. Under Scenario 2C (50% grant / 50% debt retrofit), the estimated residential bill would represent approximately 2.2% of MHI. While both scenarios remain within ranges observed among small rural systems, the capital upgrade scenario approaches commonly referenced affordability benchmarks and reinforces the importance of grant funding and phased implementation to avoid surpassing 2% of the MHI.

Fiscal Year 2027 Financial Impact Summary

SCENARIO	RESIDENTIAL FIXED MONTHLY	COMMERCIAL FIXED MONTHLY
BASELINE – NO CIP	**$48.27**	**$49.58**
RETROFIT – 50% GRANT / 50% DEBT	**$59.41**	**$61.01**
RETROFIT – FULL DEBT	$70.51	$72.41
RETROFIT – PAY-GO	$107.97	$110.89
CENTRALIZED – 50% GRANT / 50% DEBT	$70.51	$72.41
CENTRALIZED – FULL DEBT	$92.77	$95.27
CENTRALIZED – PAY-GO	$168.40	$172.95

Note: Both Residential and Commercial Fixed Monthly costs include a base rate and Capital Improvement cost increases.

Key Findings

- Baseline rate adjustments are required to maintain operational sustainability.
- Capital upgrade scenarios significantly increase revenue requirements.
- Pay-go financing results in the highest near-term customer impact.
- Grant-assisted financing meaningfully reduces rate pressure.
- A phased implementation schedule reduces rate shock and improves predictability.

Recommended Approach

1. Adopt the Baseline (Scenario 1) rate adjustment effective FY27 to stabilize operations.
2. Continue developing engineering-level cost estimates for arsenic treatment upgrades.
3. Aggressively pursue grant funding prior to final capital commitment.
4. If proceeding with upgrades, prioritize at least a 50% grant / 50% debt financing approach (as available) to balance affordability and long-term financial resilience.
5. Reassess rates at each scheduled checkpoint (FY30, FY33, FY36).

This approach allows the District to plan financially before committing to design, maintain compliance readiness, and preserve long-term fiscal stability.

Conclusion

The District, although currently financially stable, is operating within tightening margins. Proactive, phased rate adjustments, starting with a Baseline increase now, will ensure continued service reliability and regulatory compliance while positioning the system to responsibly address future infrastructure needs. This will allow the District to avoid any sudden and significant rate increases.

Introduction

Rural Community Assistance Corporation (RCAC)

This report was developed by RCAC by request of Black Canyon City Water Improvement District. Founded in 1978, RCAC provides training, technical assistance, financial resources, and advocacy to rural communities so they can achieve their goals and visions. RCAC supports communities with populations under 50,000 across the western United States and Pacific Islands, focusing on environmental infrastructure, financial sustainability, and community development.

Purpose of the Study

The Black Canyon City Water Improvement District (District) requested technical assistance to evaluate the adequacy and long-term sustainability of its current water rate structure. The purpose of this rate study is to determine whether existing revenues are sufficient to support ongoing operation and maintenance (O&M) costs, maintain appropriate reserve levels, and prepare for anticipated future capital improvement needs, including potential upgrades to treatment facilities and related infrastructure.

The District's goal is to understand its financial capacity before committing to the design and construction of major capital projects and ensure reliable funds to keep up with incremental system upgrades. This planning-focused approach allows the Board to evaluate how current rates, projected expenses, and future infrastructure needs may affect long-term affordability and financial stability. By assessing financial readiness in advance, the District can make informed decisions regarding the timing, scale, and financing of future improvements while minimizing the potential for sudden or disruptive rate increases.

Throughout the study, available District financial records, policy documents, rate schedules, and usage data were reviewed to ensure that the analysis reflects actual operating conditions to the extent possible. Where data limitations existed, such as incomplete metering coverage, reasonable planning assumptions were developed using system-wide production and usage information to provide a balanced and defensible basis for long-term projections.

The study is structured in alignment with commonly accepted practices for small public water systems, including guidance from the American Water Works Association (AWWA) on cost-of-service-based rate development and long-term financial planning.

Specifically, the objectives of this study are to:

- Evaluate the District's current financial condition and recent operating performance;
- Assess the adequacy of existing water rates to cover projected operating, maintenance, and administrative costs;
- Estimate long-term revenue needs under routine operating conditions with ongoing lifecycle asset renewal;
- Evaluate the financial implications of potential future capital improvements, including treatment facility upgrades;
- Provide a planning framework to help the District understand how revenues, expenses, and reserve levels may evolve over a multi-year period; and
- Support informed decision-making regarding phased, proactive rate adjustments that promote long-term financial sustainability.

The results of this report are intended to serve as a planning and decision-support tool for the District's Board of Directors. The study does not prescribe a single required rate action but instead presents a structured evaluation of financial needs under multiple planning scenarios, allowing the Board to balance affordability considerations with the need to maintain reliable infrastructure and comply with future regulatory requirements. This study uses recent historical financial data, current rate schedules, adopted budgets, asset and depreciation information, and available water demand data to develop a multi-year financial outlook.

System Governance and Management

BCCWID is governed by a Board of Directors responsible for setting rates, overseeing system finances, and ensuring the continued delivery of safe drinking water.

Board of Directors	
Chair	Elaine Clayton
Vice-Chair	Vacant
Treasurer	Melina Reylek
Secretary	Tom Strizak
Member-At-Large	Shawn Collins

System Overview

The Black Canyon City Water Improvement District (BCCWID or District) operates a Public Water System that provides potable water service to a primarily residential community located within its designated service area. The District currently serves approximately 864 service connections and an estimated population of approximately 2,437 residents. For planning and regulatory context, publicly available system records indicate a service population estimate of approximately 2,680 individuals. This higher estimate reflects potential seasonal occupancy variations and provides a conservative basis for long-term planning considerations.

The District's customer base is predominantly residential, with limited commercial demand relative to the overall system usage. Residential development within the service area is characterized largely by low-water-use landscaping, which contributes to moderate seasonal variability in demand compared to communities with extensive irrigation needs. This land-use characteristic helps moderate peak demand and supports relatively stable annual water usage patterns.

The water system is described as "mostly metered," meaning that the majority of service connections are equipped with water meters; however, some legacy connections may not have fully functioning meters or may not be consistently captured in detailed consumption records. This condition is not uncommon in small and rural water systems and reflects historical infrastructure and metering practices. As a result,

while customer-level meter data provides useful insight into usage patterns, it may not fully represent total system demand. For financial planning purposes, system-wide production and planning demand estimates were therefore used in conjunction with available meter data to develop reasonable long-term projections.

Based on available system records and planning assumptions, the District's average monthly water usage is estimated at approximately 5,369,500 gallons per month. This value reflects a planning-level estimate of total water usage across the system and is supported by historical production information and state reporting data. The planning demand assumption recognizes that overall water usage has likely increased over time due to changes in occupancy patterns, customer behavior, and operational conditions, even in the absence of significant community growth.

The District's infrastructure includes water supply (six groundwater wells), disinfection and arsenic treatment, several storage tanks, and distribution facilities that collectively support delivery of potable water to customers. Annual budgets and depreciation reports provided by the District support that continued aging of the system's infrastructure will require ongoing maintenance, rehabilitation, or eventual replacement over time. Additionally, the District has identified the potential need for significant future upgrades to its treatment facilities, which represents an important consideration for long-term financial planning.

Customer and Billing Information

Black Canyon City WID's is considered a small public water system that serves a mixed customer base consisting of residential and commercial accounts with varying meter sizes. At the time of this study, the system has 864 total customer accounts. The active customer base includes 789 residential and 60 commercial customers, 2 connections with unknown meter sizes, and 13 standby connections.

BCCWID's Current Rate Base Rate Structure (2024)

Water Rates consist of a Flat/base rate of $32.00 on all accounts
PLUS the following rates based on gallons

Residential Tiered Conservation Rate per 1000 gallons

9,000 gallons or less/month	$2.58
10,000 – 15,000 gallons/month	$3.48
15,000 – 30,000 gallons/month	$4.52
30,000 – 70,000 gallons/month	$6.26
Greater than 70,000 gallons/month	$8.35
Standby Service/mo	$37.00

Commercial Tiered Conservation Rate per 1000 gallons

10,000 gallons or less/month	$2.78
11,000 – 100,000 gallons/month	$4.87
101,000 – 400,000 gallons/month	$6.26
401,000 – 1,000,000 gallons/month	$8.35
Greater than 1,001,000 gallons/month	$11.14

Monthly Billing for Capital Improvement Costs

Residential	$5.00 + $1.00/1000 gallons
Commercial	$6.00 + $1.70/1000 gallons

The District's current rate structure, effective July 1, 2024, includes a combination of fixed and variable components designed to recover both customer-related and usage-related costs. The fixed charge component provides a stable revenue base to support ongoing operational expenses that do not vary directly with water use, such as administrative costs, system maintenance, and standby service availability. The volumetric charge component reflects customer water usage and helps allocate costs associated with water production, treatment, and delivery.

Water service is provided through differing meter sizes depending on the type of connection. The majority of customers (residential) are served by 3/4-inch or 5/8-inch meters, which are billed a monthly base rate of $32.00/month plus a set fee per 1,000 gallons used. Commercial connections are reported to have anywhere from 1 ½"-4" meters without having a known actual count. These are billed monthly at the same base rate as residential connections, with an increased cost per 1,000 gallons for lower usage amounts and an additional option to charge for 1,001,000 gallons and above.

The District also maintains a standby service charge, which applies to service connections that are connected to the system but may have minimal or intermittent usage. This charge recognizes that the District must maintain infrastructure capacity, operational readiness, and service availability regardless of individual customer consumption levels. As specified in the District's adopted ordinance, the standby service charge is currently set at $37 per applicable connection (13 are currently reported). This charge provides an important contribution to overall revenue stability and helps ensure that all connected customers contribute to the ongoing costs of maintaining system readiness.

During the rate analysis, RCAC reviewed financial records, available consumer data, and usage information. This review identified some data limitations, including an incomplete set of meter-read data by customer by month. As part of the purpose of this analysis, BCCWID is in need of meter replacements and accurate reads throughout their fiscal year in order to capture total gallons being billed at specific rates. These factors contribute to variability between modeled revenues and reported financials.

While these data limitations do not prevent completion of the rate study, they highlight the importance of continued improvements in billing accuracy, meter tracking, and usage documentation. Improved consistency in meter readings and billing practices will strengthen future financial planning, rate evaluations, and system sustainability. As a solution to this for the purpose of this rate study, reasonable planning assumptions were developed using system-wide production and usage information to provide a balanced and defensible basis for long-term projections.

Customer usage patterns observed in available meter data indicate that typical residential consumption is consistent with expectations for a rural Arizona community characterized by low-water-use landscaping and moderate household demand. While individual customer usage varies, overall system demand trends appear relatively stable when viewed on a monthly and annual basis. This stability supports the use of a representative planning demand value for long-term financial projections rather than relying solely on short-term fluctuations in billed consumption.

In evaluating customer and billing characteristics, it is also important to recognize that the District's limited customer base constrains its ability to generate significant additional revenue through growth alone. If there is no assumed customer growth, future revenue increases must be achieved primarily through thoughtful rate adjustments rather than expansion of the customer base.

Current Financial Condition

Revenues

An evaluation of the District's current financial condition was conducted using available financial statements for fiscal years 2022 through 2024, along with the Board-approved budget for the fiscal year ending June 2026. These records provide insight into recent operating performance, revenue stability, expenditure trends, and the District's capacity to maintain adequate reserves while meeting routine operational needs. Where there was not supporting data available, reasonable allocation assumptions were applied to this analysis for planning purposes.

Based on a review of the fiscal year 2024 actual financial results, the District appears to be operating in a generally stable financial position. Operating revenues have been sufficient to cover routine operation and maintenance (O&M) expenses, including costs associated with system operation, treatment, distribution, administration, and general overhead. The District has been able to maintain positive annual financial results in recent years, indicating that current rates are generally adequate to support day-to-day system operations under existing conditions.

However, the financial margin between revenues and expenditures remains relatively modest. While this condition reflects responsible fiscal management and cost control, it also indicates that the District has limited excess revenue capacity to absorb significant cost increases or to self-fund major capital improvements without adjustments to its rate structure or the use of external financing.

The District's total cash and reserve-type balances fluctuated between FY2022 and FY2024, ultimately increasing from approximately $572,821 in FY2022 to $738,671 in FY2024. This growth was driven primarily by significant increases in the Capital Reserve/Impact account and steady accumulation within the Arsenic Sinking Fund, indicating intentional preparation for future infrastructure and treatment-related expenditures.

At the same time, unrestricted operating liquidity declined over the three-year period, with general operating cash decreasing from $127,683 in FY2022 to $61,101 in FY2024. This trend suggests that while the District is strengthening long-term capital readiness, it is operating with a comparatively limited short-term operating cushion. As a result, continued phased rate adjustments are warranted to preserve financial flexibility while maintaining sufficient funding for planned capital improvements, including anticipated arsenic treatment upgrades.

The Board-approved budget for fiscal year ending June 2026 provides an additional perspective on the District's anticipated financial position under near-term operating conditions. The adopted budget includes projected operating revenues, routine O&M expenses, administrative costs, and planned capital outlay expenditures. The inclusion of capital outlay items in the approved budget indicates that the District is actively addressing ongoing infrastructure needs through incremental capital investments. However, the budget does not reflect the full cost of potential large-scale capital improvements, such as comprehensive treatment facility upgrades.

A comparison between FY2024 actual results and the FY2026 approved budget suggests that the District expects to maintain financial stability in the near term, with revenues continuing to cover routine

expenses and modest capital expenditures. The District's balance sheets further indicate that while reserves and fund balances are maintained, these balances must be carefully managed to ensure sufficient liquidity for emergency repairs, unexpected cost increases, and long-term asset replacement.

Overall, the District's current financial condition can be characterized as stable but constrained. Current rates appear adequate to sustain ongoing operations and routine maintenance; however, limited financial flexibility exists to address major infrastructure upgrades, long-term capital replacement, and inflation trends without additional revenue planning. This condition underscores the importance of evaluating future financial needs now and aligning the rate structure with both ongoing operational requirements and anticipated capital investment demands over the planning horizon.

Expenses

Operating expenses included in this analysis reflect the costs necessary to operate and maintain the drinking water system and were derived from available budget documents. Expense categories evaluated as part of this study include salaries and wages, insurance, services and supplies, repairs and maintenance, and depreciation.

These expense values were incorporated into the rate model to reflect a realistic representation of system costs and to ensure that proposed rates adequately support ongoing operations and maintenance.

Debt

The District has an active loan agreement with the Water Infrastructure Finance Authority (WIFA), however, no debt will currently be accrued as only Forgivable Principle amounts have been drawn down. As a result, no debt service obligations were included in the financial analysis or rate model project.

Reserves

Capital Improvement Reserve

BCCWID has established a Capital Improvement Reserve and has been contributing funds to support future infrastructure repair and replacement needs over previous years. This reserve is intended to provide financial capacity for planned capital improvements and to reduce reliance on emergency funding or external financing.

RCAC recommends continued annual contributions to the Capital Improvement Reserve to support long-term system sustainability, improve funding readiness, and strengthen the system's overall financial position.

Median Household Income & Affordability

The estimated Median Household Income (MHI) for the service area is estimated between $40,000-$50,000 without having conducted a formal MHI Survey. This value is supported by publicly available data sources as well as a RCAC conducted MHI Survey within Black Canyon City limits in 2025. This survey, although conducted within Black Canyon City limits, does not include data collected from within the Black Canyon City Water Improvement District's drinking water service area and should be treated as supporting data instead of actual.

The District's current residential water cost represents approximately 1.4%–1.6% of Median Household Income, depending on household usage. While baseline rate adjustments increase this percentage

modestly, capital-intensive scenarios approach or exceed commonly referenced 2% affordability benchmarks, reinforcing the importance of grant funding and phased implementation.

Demand Basis & Planning Assumptions

For planning purposes, the study uses an average monthly water usage estimate of approximately 5,369,500 gallons per month. This value reflects a system-wide planning demand rather than strictly billed consumption and is based on a combination of District planning records, available meter consumption data, publicly available production and reporting information and EPA's recommended estimated customer usage (~82 gallons per person per day). The planning demand assumption recognizes that total water produced and delivered by the system may exceed billed consumption due to factors such as legacy metering limitations, non-revenue water, and operational water use.

Historical data and system planning records indicate that water usage has increased from earlier reported values in approximately 2020 to more recent operational levels. This increase is consistent with changes in occupancy patterns, customer behavior, and operational conditions, even in the absence of significant growth in the number of service connections. For this reason, the planning demand assumption reflects current observed usage trends rather than relying solely on older historical production values.

Available customer meter data was reviewed to better understand typical residential usage patterns and seasonal variability. Not all service connections may have complete or consistently functioning meter records and as a result, meter-level consumption data was used primarily to characterize relative usage patterns (residential vs commercial) and distribution of demand among customers rather than as the sole determinant of total system demand.

Publicly available state reporting information and system planning documents provide context for historical production levels and population estimates and support the conclusion that an average monthly usage of approximately 5.37 million gallons is an appropriate and conservative planning basis for the District.

The analysis assumes no significant growth in the number of service connections over the multi-year planning horizon. This assumption reflects the District's relatively stable customer base and limited expectations for large-scale development within the service area.

Additional planning assumptions applied throughout the financial projections include:

- Gradual annual increases in operating and maintenance costs consistent with inflationary trends;
- Continued provision of water service to a predominantly residential customer base with moderate seasonal variability;
- Maintenance of existing infrastructure with periodic rehabilitation and replacement as needed; and
- Consideration of potential future capital improvements, including upgrades to treatment facilities, evaluated separately under defined planning scenarios.

By basing financial projections on realistic estimates of system-wide water usage and stable customer counts, the study aims to present a balanced and credible outlook that supports long-term decision-making without overstating future revenue potential. The below billing estimates will be used as the basis for the

following sections evaluating two scenarios to help the District in future financial planning. Currently, the base rate plus base capital improvement monthly costs are $37 for residential and $38 for commercial.

Current Rate Structure (Base Monthly Billing)

TYPE	BASE RATE	BASE CAPITAL IMPROVEMENT	USAGE PER MONTH (GALLONS)	COST	TOTAL (BASE, CI, & USAGE)
RESIDENTIAL	$32.00	$5.00	<9,000	$2.58	$39.58
RESIDENTIAL	$32.00	$5.00	10,000-15,000	$3.48	$40.48
RESIDENTIAL	$32.00	$5.00	15,001-30,000	$4.52	$41.52
RESIDENTIAL	$32.00	$5.00	30,001-70,000	$6.26	$43.26
RESIDENTIAL	$32.00	$5.00	>70,000	$8.35	$45.35
COMMERCIAL	$32.00	$6.00	<10,000	$2.78	$40.78
COMMERCIAL	$32.00	$6.00	10,001-100,000	$4.87	$42.87
COMMERCIAL	$32.00	$6.00	101,000-400,000	$6.26	$44.26
COMMERCIAL	$32.00	$6.00	401,000-1,000,000	$8.35	$46.35
COMMERCIAL	$32.00	$6.00	<1,000,000	$11.14	$49.14
STANDBY SERVICE	N/A	$0.00	No Use	$37.00	$37.00

Rate Scenario Evaluation

Each rate scenario will have different focuses in consideration of the current structure. Scenario 1 will focus on current operational needs and therefor will have a bigger impact on base rates and additional gallons used, whereas Scenario 2 will additionally focus on the Capital Improvement Cost portion of customer billing in an effort to plan for significant infrastructure improvements.

Scenario 1: Long-term Financial Sustainability (No CIP)

This scenario evaluates the District's long-term financial performance assuming that no major capital improvement program (CIP) is implemented beyond routine capital replacement and ongoing maintenance of existing facilities. This scenario represents a baseline planning condition in which the District continues to operate under current service levels, infrastructure configuration, and regulatory obligations, while addressing only normal lifecycle renewal and minor capital needs.

The analysis indicates that, under current conditions, the District is capable of maintaining routine operations and covering annual O&M expenses in the near term. However, because the current financial margin between revenues and expenses is modest, projected increases in operating costs over time will gradually reduce available net revenues if rates remain unchanged. As a result, without periodic and proactive rate adjustments, the District may experience increasing pressure on operating reserves and reduced flexibility to respond to unexpected repairs or regulatory changes.

Scenario 1 also considers the District's ongoing need to fund routine capital replacement and rehabilitation of aging infrastructure. Even in the absence of major new construction projects, the District continually reinvests in its multiple wells, treatment equipment, storage facilities, and distribution system components as they reach the end of their useful lives. The analysis assumes that such lifecycle

replacement needs will continue throughout the planning horizon and must be supported through a combination of operating revenues and available reserves.

Maintaining adequate operating and emergency reserves is also a critical element of long-term financial sustainability for small water systems. Under this scenario, reserve balances were evaluated to determine whether they remain sufficient to cover unexpected repairs, short-term revenue fluctuations, and routine capital needs. The projections suggest that while reserves can be maintained in the near term, continued cost increases without corresponding revenue adjustments could gradually erode reserve levels over time.

Scenario 2: Capital Improvement Program Applied (Arsenic Treatment)

Scenario 2 evaluates the District's long-term financial outlook assuming the implementation of significant capital improvements, specifically, potential upgrades to the water treatment facilities and other related infrastructure. This scenario reflects the District's expressed interest in proactively planning for future system needs before committing to final design and construction of major projects.

The purpose of this scenario is not to assume that a specific project will be immediately undertaken, but rather to evaluate how the District's financial position could be affected if substantial capital investments are required over the planning horizon. By considering this scenario in advance, the Board can better understand the potential magnitude of future funding needs and the implications for rates, reserves, and financing strategies.

For planning purposes, this scenario assumes that the District will need to undertake significant treatment facility improvements and associated infrastructure upgrades within the multi-year projection period. These improvements may include rehabilitation or replacement of existing treatment components, process upgrades to maintain water quality reliability, and related improvements to support long-term regulatory compliance and system performance. The analysis considers a range of potential capital costs based on planning-level estimates and typical costs for treatment facility upgrades in similarly sized systems.

The financial projections under Scenario 2 incorporate the estimated capital investment through a combination of potential funding approaches, including the use of reserves, external financing such as low-interest loans, and the possibility of grant funding where available. Because final project scope and financing terms are not yet defined, the scenario is structured as a planning exercise rather than a precise project cost forecast. This allows the District to understand general financial impacts without prematurely committing to specific design or construction decisions.

The results of this scenario demonstrate that major capital improvements are financially feasible for the District if planned in advance and supported by a structured rate adjustment strategy. However, the magnitude of investment required for treatment upgrades would significantly increase the District's long-term revenue needs compared to the baseline scenario. Without advance planning and gradual revenue adjustments, the financial burden of a large capital project could necessitate substantial rate increases over a short period, which may create challenges for customers.

Scenario 2 therefore illustrates the importance of integrating capital planning with long-term rate strategy. While the exact timing and scope of future treatment upgrades will depend on regulatory requirements, infrastructure condition assessments, and funding opportunities, the projections indicate that early financial planning will place the District in a stronger position to undertake necessary improvements when they become required.

Scenario 1 & 2 Results

Base Monthly Cost: Incremental Increase Schedule (w/out CI included)

SCENARIO	FY2027	FY2030	FY2033	FY2036
1) BASELINE – NO CIP BEYOND RENEWAL	$41.75	$45.82	$49.67	$52.91
2A) RETROFIT $4.5M – PAY-GO (5 YRS)	$93.38	$93.73	$93.73	$93.73
2B) RETROFIT $4.5M – DEBT (20 YRS @4%)	$60.98	$65.08	$68.92	$72.12
2C) RETROFIT $4.5M – 50% GRANT + 50% DEBT	$51.38	$55.46	$59.31	$62.54
2D) CENTRALIZED $9.0M – PAY-GO (5 YRS)	$145.64	$145.98	$145.98	$145.98
2E) CENTRALIZED $9.0M – DEBT (20 YRS @4%)	$80.23	$84.33	$88.19	$91.38
2F) CENTRALIZED $9.0M – 50% GRANT + 50% DEBT	$60.98	$65.08	$68.92	$72.12

Capital Monthly Incremental Increase Schedule: Residential

SCENARIO	FY2027	FY2030	FY2033	FY2036
1) BASELINE – NO CIP BEYOND RENEWAL	$6.52 (+$1.52)	$7.16 (+$2.16)	$7.76 (+$2.76)	$8.27 (+$3.27)
2A) RETROFIT $4.5M – PAY-GO (5 YRS)	$14.59 (+$9.59)	$14.64 (+$9.64)	$14.64 (+$9.64)	$14.64 (+$9.64)
2B) RETROFIT $4.5M – DEBT (20 YRS @4%)	$9.53 (+$4.53)	$10.17 (+$5.17)	$10.77 (+$5.77)	$11.27 (+$6.27)
2C) RETROFIT $4.5M – 50% GRANT + 50% DEBT	$8.03 (+$3.03)	$8.67 (+$3.67)	$9.27 (+$4.27)	$9.77 (+$4.77)
2D) CENTRALIZED $9.0M – PAY-GO (5 YRS)	$22.76 (+$17.76)	$22.81 (+$17.81)	$22.81 (+$17.81)	$22.81 (+$17.81)
2E) CENTRALIZED $9.0M – DEBT (20 YRS @4%)	$12.54 (+$7.54)	$13.18 (+$8.18)	$13.78 (+$8.78)	$14.28 (+$9.28)
2F) CENTRALIZED $9.0M – 50% GRANT + 50% DEBT	$9.53 (+$4.53)	$10.17 (+$5.17)	$10.77 (+$5.77)	$11.27 (+$6.27)

Capital Monthly Incremental Increase Schedule: Commercial

SCENARIO	FY2027	FY2030	FY2033	FY2036
1) BASELINE – NO CIP BEYOND RENEWAL	$7.83 (+$1.83)	$8.59 (+$2.59)	$9.31 (+$3.31)	$9.92 (+$3.92)
2A) RETROFIT $4.5M – PAY-GO (5 YRS)	$17.51 (+$11.51)	$17.57 (+$11.57)	$17.57 (+$11.57)	$17.57 (+$11.57)
2B) RETROFIT $4.5M – DEBT (20 YRS @4%)	$11.43 (+$5.43)	$12.20 (+$6.20)	$12.93 (+$6.93)	$13.52 (+$7.52)
2C) RETROFIT $4.5M – 50% GRANT + 50% DEBT	$9.63 (+$3.63)	$10.40 (+$4.40)	$11.12 (+$5.12)	$11.73 (+$5.73)
2D) CENTRALIZED $9.0M – PAY-GO (5 YRS)	$27.31 (+$21.31)	$27.37 (+$21.37)	$27.37 (+$21.37)	$27.37 (+$21.37)
2E) CENTRALIZED $9.0M – DEBT (20 YRS @4%)	$15.04 (+$9.04)	$15.81 (+$9.81)	$16.54 (+$10.54)	$17.14 (+$11.14)
2F) CENTRALIZED $9.0M – 50% GRANT + 50% DEBT	$11.43 (+$5.43)	$12.20 (+$6.20)	$12.93 (+$6.93)	$13.52 (+$7.52)

FY27 Rate Increase (Residential & Commercial)

SCENARIO	BASE RATE ($/MO)	BASE INCREASE VS TODAY	RES CAPITAL MONTHLY ($/MO)	RES CAPITAL INCREASE	RES TOTAL FIXED ($/MO)	COM CAPITAL MONTHLY ($/MO)	COM CAPITAL INCREASE	COM TOTAL FIXED ($/MO)
1) BASELINE – NO CIP BEYOND RENEWAL	$41.75	+$9.75	$6.52	+$1.52	**$48.27**	$7.83	+$1.83	**$49.58**
2A) RETROFIT $4.5M – PAY-GO (5 YRS)	$93.38	+$61.38	$14.59	+$9.59	**$107.97**	$17.51	+$11.51	**$110.89**
2B) RETROFIT $4.5M – DEBT (20 YRS @4%)	$60.98	+$28.98	$9.53	+$4.53	**$70.51**	$11.43	+$5.43	**$72.41**
2C) RETROFIT $4.5M – 50% GRANT + 50% DEBT	$51.38	+$19.38	$8.03	+$3.03	**$59.41**	$9.63	+$3.63	**$61.01**
2D) CENTRALIZED $9.0M – PAY-GO (5 YRS)	$145.64	+$113.64	$22.76	+$17.76	**$168.40**	$27.31	+$21.31	**$172.95**

2E) CENTRALIZED $9.0M – DEBT (20 YRS @4%)	$80.23	+$48.23	$12.54	+$7.54	**$92.77**	$15.04	+$9.04	**$95.27**
2F) CENTRALIZED $9.0M – 50% GRANT + 50% DEBT	$60.98	+$28.98	$9.53	+$4.53	**$70.51**	$11.43	+$5.43	**$72.41**

Scenario 1 suggest that the District's current rate structure is generally adequate to sustain present operations but may not be sufficient to fully support long-term financial resilience without periodic adjustments. Proactive, modest, and phased rate increases over the planning horizon would help ensure that operating costs are consistently recovered, reserves remain at prudent levels, and routine infrastructure replacement can be funded without reliance on emergency measures.

The results of Scenario 2 demonstrate that major capital improvements are financially feasible for the District if planned in advance and supported by a structured rate adjustment strategy. However, the magnitude of investment required for treatment upgrades would significantly increase the District's long-term revenue needs compared to the baseline scenario. Without advance planning and gradual revenue adjustments, the financial burden of a large capital project could necessitate substantial rate increases over a short period, which may be challenging for customers.

Recommendations

This rate study evaluated multiple financial scenarios to ensure long-term sustainability of operations while preparing for potential capital investments, including arsenic treatment system upgrades. The District's financial position reflects growing capital reserves but tightening unrestricted operating liquidity. Accordingly, rate adjustments are necessary to:

- Maintain operational stability,
- Fund lifecycle asset renewal,
- Preserve adequate reserves, and
- Ensure financial readiness for regulatory-driven capital improvements.

The updated implementation schedule (FY27, FY30, FY33, FY36) aligns rate adjustments with long-term financial planning checkpoints rather than annual escalation.

Baseline Sustainability (Scenario 1)

Under Scenario 1 (No CIP beyond renewal), the recommended FY27 adjustment increases the base rate from $32.00 to $41.75 per month, with residential capital charges increasing from $5.00 to $6.52 per month.

This results in a total residential fixed charge of approximately $48.27 per month (excluding volumetric charges). This adjustment:

- Addresses inflationary operating cost growth,
- Stabilizes operating liquidity,
- Supports ongoing asset renewal funding, and

- Maintains reserve adequacy without initiating major new capital programs.
- Scenario 1 represents the minimum action required to maintain long-term financial sustainability.

Capital Improvement Scenarios

If the District elects to proceed with arsenic treatment upgrades, additional revenue will be required beyond baseline sustainability needs.

Among the evaluated capital strategies:

Pay-Go Options (Scenarios 2A and 2D)
These approaches produce substantial near-term rate impacts and may create affordability concerns. While financially conservative (no debt), they result in immediate and significant rate increases for customers.

Full Debt Options (Scenarios 2B and 2E)
These options moderate immediate rate impacts and increase long-term debt service obligations.

50% Grant / 50% Debt Options (Scenarios 2C and 2F)
These scenarios balance affordability and financial prudence by leveraging external funding while maintaining manageable debt service.

Under Scenario 2C (Retrofit – 50% Grant / 50% Debt), the FY27 base rate would increase to $51.38 per month, and residential capital charges would increase to $8.03 per month, resulting in a total residential fixed charge of approximately $59.41 per month (excluding volumetric charges).

This approach:

- Reduces overall customer burden compared to pay-go,
- Limits long-term debt exposure compared to full debt financing,
- Aligns capital costs with long-term asset life, and
- Maintains financial resilience.

Recommended Path Forward
Based on the financial modeling results and the District's current reserve position, the following phased approach is recommended:

- Adopt Scenario 1 baseline rate adjustments effective FY27 to ensure operational sustainability.
- Continue developing engineering-level cost estimates for arsenic treatment upgrades.
- Pursue grant funding opportunities prior to committing to capital financing.
- If capital improvements proceed, implement a financing strategy consistent with Scenario 2C (50% grant / 50% debt), with rate adjustments aligned to the FY27–FY36 implementation schedule.

This approach allows the District to:

- Plan financially before committing to design,
- Avoid sudden rate shock,
- Maintain regulatory compliance preparedness, and
- Preserve long-term fiscal stability.

Implementation Considerations

- Rate adjustments should be adopted through formal Board action and ordinance update.
- Public communication should emphasize long-term infrastructure reliability and regulatory compliance.
    - Along with state and federally required notifications, educational efforts prior to increasing customer rates is recommended.
- Rates should be reviewed at each scheduled checkpoint (FY30, FY33, FY36) to confirm alignment with actual costs and reserve levels.
- Final rate design may rebalance fixed and volumetric components to maintain equity among customers. As real costs are determined for Capital Improvement projects, these rate adjustments and recommendations should be re-run with the new project dollar value.

Disclaimer

The findings and recommendations in this report are based on financial and operational information provided by BCCWID. Reasonable care was taken to ensure accuracy; however, RCAC makes no warranty regarding completeness. Decisions based on this report remain the responsibility of BCCWID.