Draft Report

McKinney Water District

Water Rate Study

February 2025

February 5, 2025

Ms. Karla Gunter
Secretary/Treasurer
McKinney Water District
PO Box 7036
Folsom, CA 95763

Subject: Water Rate Study Draft Report

Dear Ms. Gunter:

HDR Engineering, Inc. (HDR) is pleased to present to the McKinney Water District (District) the draft report for the District's comprehensive water rate study (Study). The District's water rate study was developed using industry standard methodologies and approaches for water utilities tailored to the District's specific system and customers. The technical analyses conducted as part of the Study for the District includes a revenue requirement, cost of service, and rate design analyses. The findings and conclusions from these analyses were used to develop proposed water rates that are proportional to the District's customers and intended to be sufficient to fund the operating and capital needs of the water utility based on the assumptions developed in the Study. This report outlines the overall approach used to achieve these objectives, along with our findings, conclusions, and recommendations.

The District owns and operates a water supply, transmission, and distribution system. The costs associated with providing water service to the District's customers has been developed based on the information provided by the District and incorporated into and within the development of the proposed water rates. The water rate study provides the basis for developing and implementing water rates which are cost-based, proportional, and defensible for the District's customers.

We appreciate the assistance provided by the District's staff in the development of the water rate study. More importantly, HDR appreciates the opportunity to provide these technical and professional services to the District.

Sincerely yours,
HDR Engineering, Inc.

Josiah Close
Utility Rates Project Manager

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Executive Summary

Introduction

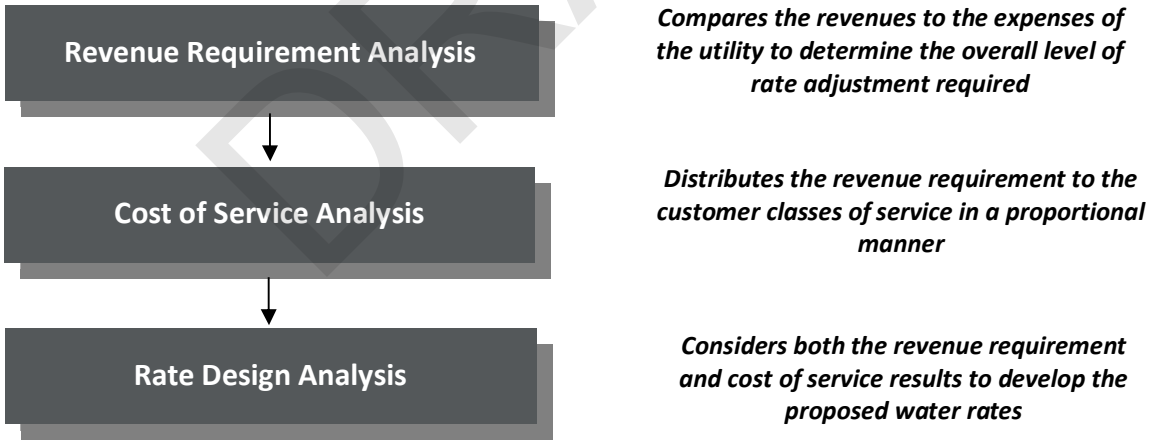
HDR Engineering Inc. (HDR) was retained by the McKinney Water District (District) to conduct a comprehensive water rate study (Study). The objective of the Study was to review the District's water utility operating and capital costs and develop proposed water rates which are cost-based and proportional for the District's customers. The Study determined the adequacy of the existing water rates and provides the framework for the proposed water rates.

The District owns and operates a water system that provides transmission and distribution services as well as the production of water for the District's customers. The costs associated with providing water services to customers served by the system has been developed based on District provided information and included within the development of the proposed water rates.

Overview of the Rate Study Process

A comprehensive water rate study uses three interrelated analyses to evaluate and address the adequacy and proportionality of a utility's rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. These three analyses are illustrated below in Figure ES - 1.

Figure ES – 1
Overview of the Comprehensive Water Rate Analyses



The above framework for reviewing and evaluating the District's water rates was utilized in the development of the comprehensive water rate study.

Key Water Rate Study Results

The technical analysis for the District's water rate study was developed based on the operating and capital infrastructure costs necessary to provide water service to the District's customers.

The District's comprehensive water rate study resulted in the following key findings, conclusions, and recommendations:

- A revenue requirement analysis was developed for the review period of FY 2025 through FY 2034
- The focus of the Study was on the next five year period of FY 2026 through FY 2030 for the proposed water rates
- The District's FY 2025 budget was used as the starting point of the analysis
- Operation and maintenance expenses are projected to increase at assumed inflationary levels
- The annual water rate (revenue) adjustments are proposed for FY 2026 through FY 2034
- A cost of service analysis was developed to proportionally distribute the revenue requirement between the District's customer classes of service (i.e., rate schedules) and rate components
- The results of the cost of service analysis provided average unit costs (i.e., cost-based rates) which were used to establish the final proposed water rates
- The Study has proposed proportional and cost-based water rates for the five-year time period of FY 2026 through FY 2030, by customer class of service (rate schedules)

Summary of the Water Revenue Requirement Analysis

A revenue requirement analysis is the first analytical step in the development of the water rate study. This analysis determines the overall adequacy of the District's current water rate revenues. From this analysis, a determination can be made as to the overall level of water rate revenue adjustments needed to provide adequate and prudent funding for both operating and capital infrastructure needs.

For the Study, the revenue requirement was developed for the ten-year period of FY 2025 to FY 2034 using the "cash basis" methodology (i.e., approach). For purposes of establishing proposed water rates, and the Proposition 218 process, the rate setting period was identified as FY 2026 through FY 2030. The primary financial inputs in the development of the District's water revenue requirement analysis were the District's FY 2025 budget, billed customer data, and the water capital improvement plan. The only assumed changes or additions in costs to the O&M was the addition of $5,000 for meter reading expenses. This is an estimate and will be refined as part of the next rate study which is anticipated five years from now.

Once the operating and maintenance (O&M) expenses have been projected over the review period, the next step is to develop the capital improvement funding plan. The proper and adequate funding of capital projects is important to maintain the District's existing water infrastructure and service levels. At the same time, it is important to create a funding plan which maximizes the amount of funds available for capital investment yet minimizes water rates in the long term. A general financial guideline states that, at a minimum, a utility should fund from user rates an amount equal to or greater than the utility's annual depreciation expense. Within the District's proposed capital funding plan, the District is projected to annually fund $150,000 in FY 2025 and increasing to $355,000 by FY 2030 which is greater than annual depreciation expense.

Provided below in Table ES - 1 is a summary of the capital improvement funding plan over the rate setting period (FY 2025 – FY 2030).

Table ES – 1
Summary of the Capital Funding Plan ($000)

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Total Capital Projects	$150	$1,238	$255	$290	$325	$355
Less: Other Funding	0	1,003	0	0	0	0
Total Rate Funded Capital	**$150**	**$235**	**$255**	**$290**	**$325**	**$355**

As can be seen, the difference between annual capital improvement needs and rate funded capital is being funded through other funding sources. A more detailed discussion of the development of the capital improvement funding plan is provided in Section 2. The detailed capital improvement plan can be found on Exhibit 4 of the Technical Appendix.

The revenue requirement analysis for the District's customers was developed to determine the rate projections based on the specific costs of the District's water utility. Provided below, in Table ES – 2, is a summary of the revenue requirement analysis (financial plan) developed for the water utility. A more detailed analysis of the revenue requirements can be found in Section 2 of this report as well as in the Technical Appendix in Exhibit 3.

Table ES - 2
Summary of the Revenue Requirement Analysis ($000)

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenues						
Rate Revenues	$94	$94	$94	$94	$94	$94
Misc. Revenues	227	222	219	226	232	238
Total Revenues	**$321**	**$316**	**$313**	**$320**	**$326**	**$333**
Expenses						
O & M	$167	$113	$119	$124	$129	$139
Rate Funded Capital	150	235	255	290	325	355
Reserve Funding	4	1	5	5	4	3
Total Expenses	**$321**	**$349**	**$379**	**$419**	**$458**	**$497**
Bal./(Def.) of Funds	$0	($33)	($66)	($99)	($132)	($165)
Bal. as a % of Rate Rev.	0.00%	35.0%	70.1%	105.0%	139.8%	174.6%
Proposed Rate Adj.	**0.00%**	**35.0%**	**26.0%**	**20.5%**	**17.0%**	**14.5%**
Add'l Rev. from Rate Adj.	$0	$33	$66	$99	$132	$165
Total Bal./(Def.) of Funds	0	0	0	0	0	0

Table ES – 2 shows the revenue requirement analysis which has included O&M, rate funded capital, and reserve funding. The District has no outstanding debt service payments and the

capital funding plan does not assume the need for future debt issuances. The total revenue requirement (i.e., expenses) are then compared to the total revenues of the District's water utility. From this comparison, a balance (+) or deficiency (-) of funds in each year can be determined. This balance or deficiency of funds is then compared to the rate revenues to determine the percentage level of rate revenue adjustment necessary to meet the revenue requirement as developed in each year of the projected time period. It is important to note, the "Bal. / (Def.) of Funds" row is cumulative. Any adjustments in the initial years will reduce the deficiency in the later years. Over this projected five-year period, and assuming no rate adjustments in the prior years, the total deficiency of rates by FY 2030 is 174.6%. To meet the overall revenue needs of the five-year rate period, annual rate adjustments have been proposed (see blue band Table ES - 2). It is important to note that the District receives property tax revenues which are a significant component of the total revenues for the water utility. Given this, the adjustments to the rate revenues do not equate directly to an overall increase in total revenues. This can result in large numerical adjustments to the water rates, however, the rate revenue increase is much less.

Based on the revenue requirement analysis developed, HDR has concluded that the District will need to adjust the level of water rate revenues as noted above to fund the projected operating and capital infrastructure needs and maintain cost-based water rates. HDR has reached this conclusion for the following reasons:

- The revenue requirement analysis indicates an overall deficiency in rate revenues
- Given the projected revenue deficiencies, rate adjustments are necessary to fully fund the District's projected operating costs and fund the proposed capital improvement plan
- The proposed rate revenue adjustments maintain the District's water utility financial health and integrity by providing consistent, long-term, and sustainable funding levels
- Prior to the implementation of the fifth (FY 2030) and final proposed water rate adjustment, the District should complete a comprehensive review of the water rates

In reaching this conclusion, HDR would recommend that the District adopt the proposed water rate revenue adjustments from FY 2026 to FY 2030 as outlined above to provide sufficient funding for the projected operating and capital needs of the water utility. A detailed discussion of the development of the revenue requirement analysis can be found in Section 2. Technical exhibits of the revenue requirement analysis have been included within the Technical Appendix in Exhibits 1 - 5.

Summary of the Water Cost of Service Analysis

A cost of service analysis determines the proportional manner to collect the revenue requirement from each customer class of service. It is important to note that the District has a single rate schedule for all customers and the cost of service was used to distribute costs to the rate structure components (water service and standby charge). The cost of service analysis developed as a part of the Study utilized generally accepted cost of service principles and industry standard methodologies as defined by the American Water Works Association (AWWA) M1 Manual to meet the requirements of Proposition 218.

In summary form, the cost of service analysis began by functionalizing the District's revenue requirement. The functionalized revenue requirement was then allocated to the appropriate cost component(s) (e.g., commodity-related, customer-related). The individual allocation totals were then proportionally distributed to the water rate structure components (e.g., rate schedule). The distributed expenses were then aggregated to determine the revenue responsibility. Table ES - 3 provides the summary of the cost of service analysis for the FY 2026 test year.

Table ES - 3
Summary of the Cost of Service Analysis ($000)

	Present Revenues (FY 2025)	Distributed Costs (FY 2026)	$ Difference	% Difference
Total	**$94**	**$127**	**($33)**	**35.0%**

It is important to understand that a cost of service analysis is based on a review of a specific point in time and that costs and customer usage characteristics changes over time, thus impacting the results.

The District's cost of service analysis and resulting proposed water rates have been developed to meet the requirements of California constitution article XIII D, section 6 (Article XIII D), also known as Proposition 218. A major component of Article XIII D is the development of rates which reflect the cost of providing service and proportionally distribute costs. A key outcome of the cost of service analysis are the cost-based average unit costs (e.g., $ / customer / year). Average unit costs from the cost of service analysis provide the cost-basis for the development of the District's proposed water rates based on the cost of service results. It is important to note that the District's customer are all unmetered and it is not possible to develop unit costs on a per water consumption unit. Provided below in Table ES - 4 is a summary of the average unit costs derived in the cost of service analysis that were used to develop the District's proposed water rate designs.

Table ES – 4
Summary of Average Annual Unit Costs

Reference Calculation	A	B	C C = A / B
	Distributed Costs	# of Customers	Annual Unit Cost
Water Service Charge	$102,215	248	$412
Standby Charge	25,009	248	101
Total	**$127,224**		**$513**

Section 3 of this report provides a detailed discussion of the cost of service analysis conducted for the District's water utility and the development of the average annual unit costs shown in Table ES – 4. The Technical Appendix to this report contains additional details associated with the cost of service analysis and can be found on Exhibits 6-8.

Summary of the Water Rate Design

The final step of the comprehensive water rate study process is the design of the District's proposed water rates to collect the required level of revenue, based on the results of the revenue requirement and cost of service analyses. The revenue requirement analysis provided a set of recommendations related to the level of annual rate revenue adjustments, or the level of total rate revenues necessary to provide sufficient funding. The cost of service analysis provided the basis for how those costs should be proportionally collected from each of the customer classes of service (e.g., rate schedules).

As discussed above, the District's proposed water rates have been developed with the intent of meeting the requirements of California constitution article XIII D, section 6 (Article XIII D). While Article XIII D requires the development of cost-based rates, it does not prescribe a specific approach or methodology to assure meeting this legal requirement. At the same time, HDR would point out that there is no single methodology for proportionally distributing the costs to the cost components. Consequently, HDR has developed this report, along with the District's proposed water rates, based on the principles and methodologies contained in the AWWA M1 manual, while also tailoring the methodology to the District's specific and unique system and customer characteristics, and requirements of Proposition 218. HDR is of the opinion this approach meets the requirements of Article XIII D to provide an administrative record of the steps taken to establish the District's water rates. HDR reaches this conclusion based upon the following:

- **The revenue derived from water rates does not exceed the funds required to provide the property related service (i.e., water service).** The proposed water rates are designed to collect the overall revenue requirement of the District's water utility.
- **The revenues derived from water rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the District's water rates are used exclusively to operate and maintain the District's water system.
- **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** Section 4 of the Study, the cost of service analysis, focuses exclusively on the issue of the proportional assignment of costs to each rate structure component. The proposed rate structure components have been designed to reflect the associated costs to provide water service. The assignment of costs based on the customer characteristics for each of the District's water rate structure components creates the proportionality required under Article XIII D. The proposed water rates reflect both the level of revenue to be collected by the utility, but also the manner in which these costs are incurred and proportionally distributed based upon their proportional impacts and burdens on District's the water system, water resources, and financial costs.

Given the requirements to develop water rates based on cost of service principles, the average unit costs in Table ES – 4 were used to design the proposed water rates.

The District currently has a single class of service which encompasses all customers, which are entirely residential. The present water rate structure includes a flat fixed annual charge. Section 4 of this report discusses the rate design process in more detail. The proposed water rates are based on the results of the average unit costs shown in Table ES - 4. Given that the customers are currently unmetered, the District will maintain its current rate structure. The District, however, is anticipated to install meters over the next five-year period. When this work is completed and the District completes the next rate study, the current rate structure will be reviewed and updated. Provided below in Table ES - 5 is a summary of the present and proposed water rates for the five-year rate setting period.

Table ES - 5
Summary of the Present and Proposed Water Rates

	Present Rates	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
	$ / Acct. / Yr.					
Water Service Charge	$300	$412	$519	$625	$731	$837
Standby Charge	80	101	127	153	179	205

As noted, the cost of service average unit costs are the basis for the fixed annual water service and standby charges. In this way, the proposed water rates reflect the results of the revenue requirement analysis (overall system revenue needs), and cost of service analysis (average unit costs) are the basis for the proposed water rates.

Section 4 of this report provides a detailed discussion of the current and proposed water rates along with a component by component summary of the proposed water rates for FY 2026 through FY 2030.

Water Rate Study Recommendations

Based on the results of the water rate study, HDR recommends the following:

- Rate revenue adjustments are necessary to prudently fund operating expenses and necessary capital investment in renewal and replacement of the existing system
- Water rate revenues should be adjusted in FY 2026 through FY 2030
- The District's proposed water rates reflect the results of the cost of service analysis. The average unit costs derived from the cost of service analysis, and the basis for the District's proposed water rates, reflect the proportional distribution of costs
- Prior to the implementation of the fifth, and final, proposed set of rate adjustments the District should complete an update to the water rate study

Summary of the Water Rate Study

This completes the summary discussion of the development of the comprehensive rate study conducted for the District's water utility. The focus of the Study has been the prudent and adequate funding of the annual water utility O&M expenses and capital funding needs. Furthermore, to meet the requirements of Proposition 218, the proposed water rates were developed based on the proportional distribution of costs through the cost of service analysis. A full and complete discussion of the development of the District's comprehensive water rate study can be found in following sections of this report.

Proposition 218

Given the requirements of Proposition 218, a detailed process must be utilized in order to adopt and implement a change in the District's water rates. The first requirement is that the proposed rates must be cost-based or justified and that is the reason the District has developed the Study. Once the cost basis for the proposed water rates have been calculated, a public notice process must be undertaken in order to adopt the proposed rates. This begins with the presentation of the proposed rates to the District's Board of Directors. If the proposed rates are acceptable and prudent, the Board can direct staff to prepare and mail the Proposition 218 notices to the District's customers which outlines the changes in water rates and the time, date, and location of the public hearing.

1 Rate Setting Principles

HDR Engineering, Inc. (HDR) was retained by the McKinney Water District (District) to conduct a comprehensive water rate study (Study). The objective of a comprehensive water rate study is to develop proportional and cost-based water rates which are compliant with the requirements of Proposition 218. This is accomplished by first reviewing and analyzing the District's water operating and capital costs and developing a projection of the overall revenue requirement of the water utility. Next, the District's revenue requirement is proportionally distributed to the District's cost and rate structure components. The findings and conclusions from the cost of service analysis are then used to develop the District's proposed water rates which are reflective of how the District incurs costs to provide the water service to the District's customers. The result of the comprehensive water rate study process is proportional water rates reflective of the water utility specific costs (i.e., cost-based rates).

The District owns and operates a water supply, storage, transmission, and distribution system. The determination of the total costs associated with providing water to the District's customers has been developed based on the District's accounting, operating, and customer billing records along with other relevant information.

1.1 Organization of the Study

This report is organized in a sequential manner that first provides an overview of utility rate setting principles, followed by sections that detail the specific technical and analytical steps used to develop the District's proposed water rates. The following sections comprise the District's water rate study report:

- Section 1 – Rate Setting Principles
- Section 2 – Revenue Requirement Analysis
- Section 3 – Cost of Service Analysis
- Section 4 – Rate Design Analysis

A Technical Appendix is attached at the end of this report, which details the technical analyses that were undertaken in the preparation of the District's Study.

1.2 Goals and Objectives

The District had several key objectives in developing the water rate study. These key goals and objectives provide a framework for the technical analysis and policy decisions that are a part of this study. The District's key goals and objectives for the Study were as follows:

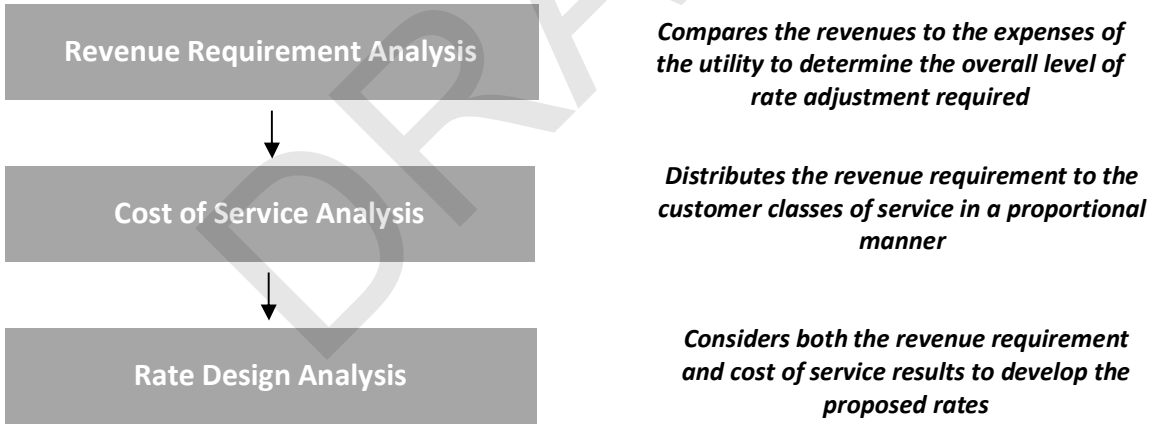
- Develop the Study in a manner consistent with the principles and methodologies established by the American Water Works Association (AWWA), M1 Manual, Principles of Water Rates, Fees, and Charges to meet the requirement of Proposition 218
- In financial planning and establishing the District's proposed water rates, review and utilize best industry practices, while recognizing and acknowledging the specific and unique characteristics of the District's system and customers

- Utilizing generally accepted rate making methodologies review the District's costs to determine the adequacy and proportionality of the water utility's rates
- Meet the District's financial planning criteria as it relates to legally required debt service coverage (DSC) ratios, adequate funding of capital infrastructure, and maintenance of adequate and prudent reserve levels
- Develop a final proposed rate transition plan which adequately supports the District's funding requirements, while attempting to minimize overall impacts to rates
- Provide proposed water rates designed to meet the intent and requirements of California Constitution article XIII D, section 6 (commonly referred to as Proposition 218)

1.3 Overview of the Rate Study Process

The District's water rates must be set at a level where the operating and capital expenses are met with the revenues received from customers. This is an important point, as failure to achieve this objective may lead to insufficient funds to maintain system integrity. To evaluate the adequacy and proportionality of a utility's existing rates, a comprehensive water rate study is often performed. A comprehensive water rate study consists of three interrelated analyses. Figure 1 - 1 below provides an overview of these analyses.

Figure 1 – 1
Overview of the Comprehensive Water Rate Analyses



The above framework was utilized for reviewing and evaluating the District's water rates.

1.4 Determining the Revenue Requirement

Most public utilities use the "cash basis" [1] approach, or methodology, for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary

[1] "Cash basis" as used in the context of rate setting is not the same as the terminology used for accounting purposes and recognition of revenues and expenses. As used for rate setting, "cash basis" simply refers to the specific cost components to be included within the revenue requirement analysis.

requirements and the calculation is easy to understand. A public utility totals its cash expenditures for a period to determine required revenues. The revenue requirement for a public utility is usually comprised of the following cost components or expenses:

- **Total Operating Expenses:** This includes a utility's operation and maintenance (O&M) expenses, plus any applicable taxes or transfer payments. Operation and maintenance expenses include the materials, electricity, labor, supplies, etc., needed to keep the utility functioning.
- **Total Capital Expenses:** Capital expenses are calculated by adding annual debt service payments (principal and interest) to capital improvements financed with rate revenues. In lieu of including capital improvements financed with rate revenues, a utility sometimes includes annual depreciation expense to stabilize the annual revenue requirement.

Under the cash basis approach, the sum of the total operating expenses plus the total capital expenses equals the utility's revenue requirement during the selected time period (historical or projected).

Note that the two portions of the capital expense component (debt service and capital improvements funded from rate revenues) are necessary under the cash basis approach because utilities generally cannot finance all their capital facilities with long-term debt. At the same time, it is often difficult to pay for all capital expenditures on a "pay-as-you-go" basis given that some major capital projects may have significant rate impacts upon the utility, even when financed with long-term debt. Many utilities have found that a combination of "pay-as-you-go" funding and long-term debt financing will often lead to minimization of rate increases over time.

As noted, public utilities typically use the cash basis methodology or approach to establish their revenue requirements. An exception may occur if a public utility provides service to a wholesale or large contract customer. In this situation, a public utility could use the "utility basis" approach (see Table 1 - 1) to earn a "fair" rate of return on the investment needed to serve the wholesale or large contract customer.

Table 1 – 1
Cash versus Utility Basis Comparison

	Cash Basis		Utility Basis (Accrual)
+	O&M Expenses	+	O&M Expenses
+	Taxes/Transfer Payments	+	Taxes/Transfer Payments
+	Capital Improv. Funded From Rates (≥ Depreciation Expense)	+	Depreciation Expense
+	Debt Service (Principal + Interest)	+	Return on Investment
=	**Total Revenue Requirement**	=	**Total Revenue Requirement**

1.5 Analyzing Cost of Service

After the total revenue requirement is determined, it is proportionally distributed to the users of the service. The allocation and distribution process, as analyzed through a cost of service analysis, reflects the cost relationships for producing and delivering water services. A cost of service analysis requires three analytical steps:

1. Costs are ***functionalized,*** or grouped, into the various cost categories related to providing service (supply, treatment, distribution, pumping, etc.). This step is largely accomplished by the utility's accounting system.
2. The functionalized costs are then ***allocated*** to specific cost components. Allocation refers to the arrangement of the functionalized data into cost components. For example, a water utility's costs are typically allocated as commodity (average day), capacity (peak day), customer, or fire-protection-related costs.
3. Once the total costs are allocated into the cost components, they are proportionally ***distributed*** to each of the customer classes of service (e.g., single family, multi-family, commercial, irrigation) or rate schedule component (e.g., fixed, variable). The proportional distribution is based on each customer class's relative contribution to the cost component (i.e., benefits received from, and burdens placed on the system and its resources). For example, customer-related costs are proportionally distributed to each class of service based on the total number of customers in that class of service, relative to all other customer classes of service. Once the total costs (i.e., revenue requirement) are proportionally distributed, the level or amount of revenues required from each customer class of service to achieve cost-based rates can be determined.

The District's cost of service analysis was developed based on generally accepted water cost of service methodologies and approaches, while at the same time, tailoring the analysis to take into consideration and reflect the District's unique customer and system characteristics. The water cost of service analysis developed for the District is discussed in more detail in Section 3 of this report.

1.6 Designing Water Rates

Water rates that meet the utility's cost-based and proportional objectives are designed based upon the findings and conclusions from the revenue requirement and cost of service analyses. Using the cost information from these two analyses provides rates that are strictly cost-based and proportional. The average unit costs (i.e., cost-based rates) from the cost of service analysis does not consider, or take into account, other non-cost based goals and objectives (e.g., conservation, economic development, ability to pay, revenue stability). In designing water rates, many utilities consider or incorporate other rate design objectives such as ability to pay, continuity of past rate philosophy, economic development, ease of administration, and customer understanding into their final water rate designs. However, the District's proposed water rates must comply with the requirements of Proposition 218. They must take into consideration each customer class's proportional share of costs distributed through the cost of service analysis to meet the requirements of Proposition 218. The development of the District's proposed water rate designs is discussed in more detail in Section 4 of this report.

1.7 Economic Theory and Rate Setting

One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained. This statement's implications on utility rate designs are significant. For example, a water utility usually incurs capacity-related costs to meet summer outdoor or non-domestic watering needs. It is presumed, then, that the customers who create excessive peak demands on the system - and create the need for upsizing of the water system infrastructure - should pay their proportional share of the costs related to the over-sizing of facilities to meet peak use requirements. When costing and pricing techniques are refined, consumers have a more accurate understanding of what the commodity costs to produce and deliver. This price-equals-cost concept provides the basis for the subsequent analysis and comments. This basic pricing technique has been incorporated and used within the Study.

1.8 Summary

This report will review and discuss the Study prepared for the District. This report has been prepared utilizing generally accepted water rate setting methodologies and techniques to meet the requirements of Proposition 218.

2 Revenue Requirement Analysis

The development of the revenue requirement analysis is the first analytical step in the three-step comprehensive water rate study process as described in Sections 1. This section of the report describes the development of the revenue requirement analysis for the District's water utility. The District provided HDR with detailed revenue, expense, and customer data for the water system that allowed for the development of the revenue requirement analysis.

The revenue requirement analysis, as developed for the District's water utility, determines the adequacy of water rates at current rate levels. From this analysis, a determination can be made as to the overall level of rate revenue adjustment needed to provide adequate and prudent funding for both operating and capital expenses. HDR has developed an independent analysis based on the data and information provided by the District.

2.1 Determining the Revenue Requirement

In developing the District's water revenue requirement, the water utility must financially "stand on its own" and be properly funded. That is, no transfers from other District funds occur to support the water utility. As a result, the revenue requirement analysis assumes the full and proper funding needed to operate and maintain the District's water system on a financially sound and prudent basis.

2.2 Establishing a Time Frame and Approach

The first step in developing the revenue requirement for the District's water utility was to establish a time frame for the revenue requirement analysis. For the Study, the revenue requirement was developed for the budget year of FY 2025 and the review period of FY 2026 through FY 2034. While the revenue requirement was developed for a ten-year period, the focus was the immediate five-year rate setting period of FY 2026 through FY 2030. Reviewing a multi-year time period is recommended in order to aide in identifying any major financial impacts that may be on the horizon. By anticipating future financial requirements sooner, the District can begin planning for these changes, thereby minimizing short-term rate impacts and likely overall long-term rate levels.

The second step in determining the revenue requirement was to decide on a method to accumulate costs. In this case, a cash basis revenue requirement was utilized. As noted in Section 1, the cash basis approach is the most common methodology used by municipal utilities to establish their revenue requirement. Table 2 - 1 provides a summary of the cash basis approach and details the cost components used to develop the District's water revenue requirement.

Table 2 – 1
Overview of the District's Cash Basis Revenue Requirements

+	Water Operation and Maintenance Expenses
+	Rate Funded Capital
+	Debt Service (Principal + Interest) – Existing and Future
±	Reserve Funding
=	**Total Water Revenue Requirement**
–	Miscellaneous Revenues
=	**Net Revenue Requirement** *(Balance Required from Water Rate Revenues)*

Given a time period around which to develop the revenue requirement and a method to accumulate the costs, the focus shifts to the development and projection of the revenues and expenses of the District.

The primary financial inputs in the development of the water revenue requirement was the District's FY 2025 budget document, FY 2025 customer data to develop a projection of customer billing data, and the water capital improvement plan which was developed by the District. Presented below is a detailed discussion of the steps and key assumptions contained in the development of the District's water revenue requirement analysis.

2.3 Projecting Rate and Other Miscellaneous Revenues

Once the method and time period for developing the revenue requirement was established, the next step is to develop a projection of the water rate revenues, at present rate levels. In general, this process involved developing projected billing units which were based on historical billing records as provided by the District. The billing units were then multiplied by the current water rates to calculate the anticipated revenues received. This method of independently calculating revenues links the projected revenues used within the Study to the projected billing units. It also helps to confirm that the billing units used within the analyses are reasonable for purposes of projecting future revenues, proportionally distributing costs, and developing the District's proposed water rates. At current rate levels, the District is projected to receive approximately $94,000 in rate revenue in FY 2025. In discussion with the District, the Study has assumed no annual customer growth (0.0%/year) resulting in rate revenues, remaining flat over the Study time period.

In addition to water rate revenues, the water utility also receives miscellaneous or non-operating revenues. There are various miscellaneous revenue sources which are related to late fees, interest earnings, and other miscellaneous revenues as well as property tax revenues with is a significant portion of the total revenues. In total, the District is projected to receive approximately $227,000 in miscellaneous revenues in FY 2025. This amount is projected to slightly increase over the projected period to approximately $238,000 by FY 2030.

On a combined basis, summing the water rate revenues at current rate levels and the miscellaneous revenues, the District's water utility has total projected revenues of approximately $321,000 in FY 2025, which is projected to increase to approximately $333,000 by FY 2030.

2.4 Projecting Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the District to provide water service, which includes the supply, treatment, transmission, and distribution of water and the daily operation and maintenance of the existing infrastructure. For the development of the revenue requirement, the District provided detailed historical and budgeted O&M expenses and the capital improvement plan for the water utility. The starting point was the budgeted FY 2025 O&M expenses which were then projected over the review period based on estimated annual inflationary (escalation) factors. These were developed based on the recent experience of the District and the general economy. Shown below in Table 2 - 2 is a summary of the O&M escalation factors used to project the District's water O&M expenses within the revenue requirement analysis.

Table 2 – 2
Summary of the Escalation Factors

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Labor	5.0%	5.0%	3.5%	3.5%	3.5%
Benefits - Medical	4.0%	4.0%	4.0%	4.0%	4.0%
Benefits - Other	4.0%	4.0%	4.0%	4.0%	4.0%
Professional Services	5.0%	5.0%	3.5%	3.5%	3.5%
Miscellaneous	3.0%	3.0%	3.0%	3.0%	3.0%
Utilities	7.5%	7.5%	5.0%	4.0%	4.0%
Insurance	9.5%	9.5%	9.5%	9.5%	5.0%
Flat	0.0%	0.0%	0.0%	0.0%	0.0%
CIP Inflation	3.0%	3.0%	3.0%	3.0%	3.0%

The total FY 2025 O&M expenses for the District are budgeted at approximately $167,000. Over the rate setting period, the total O&M expenses for the District is projected to decrease to approximately $139,000 by FY 2030, due mainly to a large onetime expense related to the capital planning for the water line replacement. Additional O&M related to the reading of water meters was also added in FY 2030 as the District is installing water meters for all its customers to meet California State requirements.

2.5 Projecting Capital Funding Needs

A key component in the development of the water revenue requirement was properly and adequately funding capital improvement needs related to the infrastructure of the District's water system. One of the major issues facing utilities across the U.S. is the amount of deferred capital projects and the funding pressure from growth/expansion and regulatory-related improvements. The proper and adequate funding of capital projects is an important issue for all water utilities and is not just a local issue or concern of the District.

In general, there are three general types of capital projects that a utility may need to fund. These include the following types:

- **Renewal & Replacement** - A renewal and replacement project is a project required for maintaining the existing system that is in place today. As the existing infrastructure becomes worn out, obsolete, etc., the utility should be making continuous (annual) investments to maintain the integrity of the facilities.
- **Growth / Capacity Expansion** - A utility may make capital investments to expand the capacity of facilities to accommodate future capacity needs (customers)
- **Regulatory-Related** - Another type of project may be a function of a regulatory (legal) requirement in which the Federal or State government mandates the need for an improvement to the system to meet a regulatory standard (e.g., water quality)

Understanding these different types of capital projects is important as it may aid in explaining necessary rate adjustments. As the need for capital investment increases, it often directly impacts needed rate revenue adjustments. In addition, and more importantly, the way in which projects are funded may vary by the type of capital project. For example, annual and on-going renewal and replacement projects may be paid for through rates and funded on a "pay-as-you-go" basis. In contrast to this, growth or capacity expansion projects may be funded through the collection of development or connection fees (i.e., growth-related charges) in which new development pays an equitable share of the cost of facilities necessary to serve their respective development (impact). Finally, regulatory projects may be funded by a variety of different means, which may include annual rate revenues, long-term borrowing, grants, etc.

While the above discussion appears to precisely divide capital projects into three clearly defined categories, the reality of working with specific capital projects may be more complex. For example, a water pipeline may be replaced, but while being replaced, it is up-sized to accommodate greater capacity to serve increasing demands or new development. There are many projects that share these "joint" characteristics. At the same time, projects may not be "replacement" related, but rather "improvement" related.

For purposes of developing the capital funding plan for the revenue requirement analysis, the District provided its long-term capital improvement plan (CIP) as the basis for the development of the capital funding plan. The CIP provides a listing of capital projects that address deficiencies and improvements needed on the water system.

Provided below in Table 2 - 3 is a summary of the capital funding plan based on the capital plan as developed by the District based on current needs. As noted, the focus of the District's water rate study was on the next five-year period for rate setting purposes.

Table 2 – 3 Summary of the Capital Funding Plan ($000)						
	FY 2025	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**
Install Water Meters	$0	$0	$0	$230	$238	$246
Rubicon/McKinney Creek – Phase 1	0	1,126	0	0	0	0
Rubicon/McKinney Creek Contingency	0	113	0	0	0	0
To Capital Reserves	150	0	255	60	87	109
Total Capital Projects	**$150**	**$1,238**	**$255**	**$290**	**$325**	**$355**
Less: Outside Funding Sources						
Operating Fund	$0	$350	$0	$0	$0	$0
Capital Fund	0	653	0	0	0	0
New SRF Loans	0	0	0	0	0	0
New Revenue Bonds	0	0	0	0	0	0
Total Outside Funding Sources	**$0**	**$1,003**	**$0**	**$0**	**$0**	**$0**
Rate Funded Capital	**$150**	**$235**	**$255**	**$290**	**$325**	**$355**

As can be seen in Table 2 - 3, the total cost of the capital projects to be funded varies from year-to-year and includes system improvements (Rubicon/McKinney Creek Phase 1), annual system improvements, meter installation, and funding towards the Phase 2 water main replacement project. While the total amount required to fund projects may vary from year-to-year, the rate study capital funding plan has developed a consistent funding source from rates to fund capital improvements. In this case, rate funded capital will annually fund, on average, $268,000 per year, in FY 2025 through FY 2030. As a point of reference, the District's annual depreciation expense was approximately $64,000 for FY 2024. A desirable and recommended minimum funding target for rate funded capital is an amount equal to or greater than annual depreciation expense. It is important to understand that annual depreciation expense is not the same as replacement cost, which can be 1.5 to 2.0 times the original cost of the project. Thus, funding an amount which exceeds annual depreciation expense is both prudent and appropriate which the District is accomplishing. It is important to note that the capital funding plan is funded on a pay-as-you-go basis. That is, this capital funding plan has not assumed the need for long-term borrowing to fund capital projects.

The capital funding plan has established a level of annual rate funding which is greater than annual depreciation. Going forward, the District should continue to plan and monitor their annual renewal and replacement needs and, as appropriate, increase the level of rate funded capital over time to keep up with the cost escalation of these capital projects. In developing this financial plan, HDR and the District have attempted to minimize rate impacts while funding the planned capital improvement projects of the District's water utility.

2.6 Projection of Debt Service

The District currently has no outstanding debt issues for the water utility, and the capital funding analysis (Table 2 – 3) has not assumed additional long-term borrowing to fund capital improvements during the rate setting period.

2.7 Reserve Funding

The final component of the revenue requirement analysis is the reserve funding. This relates to changes in working capital and the reserve funds. It includes transfers to, or from, reserve funds to maintain prudent ending fund balances or for future funding of capital projects. For the District's model, an operating reserve and a capital reserve were utilized to help segregate funds for different purposes. The balance of funds after the transfers are made is transferred to the operating or capital fund to maintain the minimum fund balance. Funding from reserves may also be used to meet operating and capital needs in a deficient year.

2.8 Summary of the Revenue Requirement

Given the above projections of revenue and expense components, a summary of the District's water revenue requirement analysis can be developed. In developing the revenue requirement analysis, consideration was given to the financial planning considerations of the District. More specifically, emphasis was placed on minimizing rates to the extent possible while adequately funding the operational and capital improvement needs throughout the review period. Presented below in Table 2 - 4 is a summary of the District's water revenue requirement analysis based on projected expenses and current rates. Detailed exhibits of this analysis can be found in the Technical Appendices in Exhibits 1 - 5.

Table 2 - 4
Summary of the Revenue Requirement Analysis ($000)

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Revenues						
Rate Revenues	$94	$94	$94	$94	$94	$94
Misc. Revenues	227	222	219	226	232	238
Total Revenues	**$321**	**$316**	**$313**	**$320**	**$326**	**$333**
Expenses						
O & M	$167	$113	$119	$124	$129	$139
Rate Funded Capital	150	235	255	290	325	355
Reserve Funding	4	1	5	5	4	3
Total Expenses	**$321**	**$349**	**$379**	**$419**	**$458**	**$497**
Bal. / (Def.) of Funds	$0	($33)	($66)	($99)	($132)	($165)
Bal. as a % of Rate Rev.	0.0%	35.0%	70.1%	105.0%	139.82%	174.59%
Proposed Rate Adjustment	**0.0%**	**35.0%**	**26.0%**	**20.5%**	**17.00%**	**14.50%**
Add'l Rev. from Rate Adj.	$0	$33	$66	$99	$132	$165
Total Bal. / (Def.) of Funds	0	0	0	0	0	0

As can be seen, the revenue requirement has summed the O&M, rate funded capital, and reserve funding (i.e., net funding to and from reserves). The District's total revenue requirement is then compared to the total revenues which include the rate revenues - at present rate levels - and other miscellaneous revenues. From this comparison, a balance or deficiency of funds in each

year can be determined. This balance or deficiency of funds is then compared to the present rate revenues to determine the level of rate adjustment needed to meet the revenue requirement. It is important to note the "Bal. / (Def.) of Funds" row is cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. In FY 2026 through FY 2030, annual rate adjustments are proposed, which would be implemented in July of each fiscal year (the first month of the fiscal year). The proposed rate revenue adjustments are 35.0% in FY 2026, 26.0% in FY 2027, 20.5% in FY 2028, 17.0% in FY 2029, and 14.5% in FY 2030. It is important to note that the District receives property tax revenues which are a significant component of the total revenues for the water utility. Given this, the adjustments to the rate revenues do not equate to an increase in total revenues, based on the proportion of property tax revenues. This can result in large numerical adjustments to the water rates; however, the rate revenue increase is much less.

Based on the revenue requirement analysis developed for the District's water utility, HDR has concluded that the rate revenues will need to be adjusted over the next five years to maintain prudent funding of annual O&M and capital expenses and establish cost-based water rates. Based on the rate transition plan (blue shaded line in Table 2 – 4), the proposed annual rate revenue adjustments are designed and intended to meet the operating and capital needs of the District's water utility, as well as maintain strong financial metrics.

2.9 Reserve Levels

A key element of determining the financial health and sustainability of the District's water utility is a review of the level of available reserve funds after the proposed rate adjustments. Utilities can establish and maintain several different reserves. Each reserve has a specific and different purpose. The typical types of reserves that utilities often maintain are generally referenced as an operating reserve, a capital reserve, and in some cases an emergency or rate stabilization reserve. Certain funds may establish a minimum ending balance that, if reached or falls below, is a signal that the District should review the revenue sources associated with that fund and take appropriate action. The minimum ending balances will vary depending on the purpose of the fund and the expected revenue sources.

For the District, there are two primary funds for the water utility rate study. These are the Operating Reserve and Capital Reserve. Each of these is discussed further below.

- **Operating Reserve –** The operating reserve is in place to meet the District's fluctuating cash flow needs. The typical minimum ending balance for an operating reserve ranges from 90 – 365 days of annual O&M expenses. For the District, the minimum target was set at 365 days of O&M expenses. This is done as the District bills on an annual basis and is therefore exposed to greater risk and impacted by cash flow restraints. This target results in a minimum ending balance of approximately $167,000 in FY 2025. Over the five -year rate setting period, the operating reserve is projected to maintain an ending balance greater than the target minimum.
- **Capital Reserve –** The capital fund is used to hold reserves available for funding capital projects. There was no minimum employed for the reserve fund. However, when capital reserve funds are available, this fund is used to pay for capital improvement projects.

2.10 Consultant's Conclusions

The revenue requirement developed above for the District's water utility has indicated the need for annual rate revenue increases to adequately fund the District's O&M and capital expenses for the water utility. The proposed rate revenue adjustments are 35.0% in FY 2026, 26.0% in FY 2027, 20.5% in FY 2028, 17.0% in FY 2029, and 14.5% in FY 2030. HDR has reached this conclusion for the following reasons:

- Rate adjustments are necessary to adequately fund the water utility's operating and capital expenses
- The proposed rate adjustments maintain the District's financial health and provide long-term sustainable funding levels

In reaching the above conclusions, HDR would recommend that the District adopt the proposed annual rate revenue adjustments to provide sufficient funding for the District's projected operating expenses and capital improvement program. Prior to the implementation of the fifth, and final, proposed rate adjustment the District should complete a review of the water rates.

3 Cost of Service Analysis

This section will provide an overview of the second step in a comprehensive water rate study; the cost of service analysis developed for the District's water utility. A water cost of service analysis determines the proportional distribution or assignment of the total revenue requirement to the various rate structure components. The previously developed revenue requirement for FY 2026 (test year) was utilized in the development of the following cost of service analysis.

3.1 Objectives of a Cost of Service Study

There are two primary objectives in conducting a cost of service analysis:

- Proportionally distribute the District's water revenue requirement, and
- Derive average unit costs (i.e., cost-based water rates) for subsequent rate designs

The objectives of the cost of service analysis are different from determining a revenue requirement. As noted in the previous section, a revenue requirement analysis determines the utility's overall financial needs, while the cost of service analysis determines the proportional manner to collect the total revenue requirement.

The results of the cost of service analysis determine the average unit costs (i.e., cost-based rates) which are used in the development of the final step of the rate study process, the rate design analysis. The cost of service analysis provides unit costs based on the proportional share of costs. For example, a water utility typically incurs costs related to average day and peak day demands, fire protection, and customer-related cost components. A water utility must build sufficient capacity[2] to meet summer peak capacity needs. Therefore, those customers contributing to those peak demands on the system should pay their proportionate (i.e., fair) share of the costs to provide the capacity in the system. The average unit costs derived from the cost of service analysis provides the relationship between these components which are then used to set cost-based rates. Similarly, the customer-related costs are totaled and distributed proportionately on an a per customer basis. It is important to note that the specific cost of service analysis for the District's Study utilized the approaches mentioned above but the analysis was simplified as the District does not have meters and cannot currently evaluate water usage of the customers. As a result there is limited ability to distribute costs based on how the customers use water.

3.2 Determining the Customer Classes of Service

The first step in a cost of service analysis is to determine the customer classes of service. Based on a review of the customer information, the current rate schedules, and discussion with District staff, there is a single class of service used within the cost of service analysis. In determining classes of service for cost of service purposes, the objective is to group customers together into

[2] System capacity is the system's ability to supply water to all delivery points at the time when demanded. Coincident peaking factors are calculated at the time of greatest system demand. The time of greatest demand is known as a peak demand. Both the operating costs and capital asset related costs incurred to accommodate the peak demands are generally allocated based upon the contribution to the specific peak month, peak day or peak hour event.

similar or homogeneous groups based upon similar facility requirements and/or demand characteristics. For the District, the customers are entirely residential homes which reflects the approach of using a single rate schedule.

3.3 General Cost of Service Procedures

To determine the cost to provide water service on the District's water system, a cost of service analysis is conducted. A cost of service analysis utilizes a three-step approach to review costs. These steps take the form of *functionalization*, *allocation*, and *distribution*. Provided below is a discussion of the water cost of service study conducted for the District, and the specific steps taken within the analysis. The approach used for the District's Study conforms to generally accepted, and industry standard, cost of service methodologies which are outlined in the AWWA M1 Manual to meet the proportionality requirements of Proposition 218.

3.3.1 Functionalization of Costs

The first analytical step in the cost of service process is called "functionalization". Functionalization is the arrangement of expenses data by major operating functions (e.g., supply, treatment, transmission, distribution). Within the District's Study there was a limited amount of functionalization of the cost data required since it was already accomplished within the District's system of accounts.

3.3.2 Allocation of Costs

The second analytical task performed in a water cost of service study is the allocation of costs. The allocation of costs examines why each expense identified in the revenue requirement was incurred or what type of need is being met. As mentioned above, the District's Study was streamlined based on the fact that no water usage data is available due to the fact that there are no water meters. Given this, the following cost allocators were used to develop the District's water cost of service analysis:

- **Commodity-Related Costs:** Commodity costs are those costs which tend to vary with the total quantity of water consumed by a customer. Commodity costs are those incurred under average load (demand) conditions and are generally specified for a period such as a month or year.
- **Customer-Related Costs:** Customer costs are those costs which vary with the number of customers on the water system. They do not vary with system output or consumption levels. These costs are also sometimes referred to as "readiness to serve" or availability costs.

Water Cost of Service Analysis Terminology

Functionalization – The arrangement of the cost data by functional category

Allocation – The assignment of functionalized costs to cost components

Distribution – Proportionally distributing the allocated costs to each class of service based upon each class's proportional contribution to that specific cost component.

Commodity Costs – Costs that are allocated as commodity-related vary with the total volume of water consumed

Customer Costs – Costs allocated as customer-related vary with the number of customers on the system

3.3.3 Development of Distribution Factors

Once the allocation process is complete, the allocated costs are proportionally distributed to each rate component. Given a single rate structure, the District's allocated costs for the water utility were distributed to the rate components directly, that is the water service and standby charge.

3.4 Functionalization and Allocation of Operating Expenses

For the District's water rate study, the revenue requirement for FY 2026 was functionalized, allocated, and distributed. As noted in Section 2, the District utilized a cash basis revenue requirement, which was comprised of operation and maintenance expenses, rate funded capital, debt service, and reserve funding. A more detailed review of the functionalization and allocation of the revenue requirement can be found in the Technical Appendix in Exhibit 6

3.5 Major Assumptions of the Cost of Service Study

Several key assumptions were used within the District's water cost of service analysis. Below is a brief discussion of the major assumptions used.

- The test period used for the water cost of service analysis was FY 2026. The revenue and expense data were previously developed within the revenue requirement analysis
- A cash basis methodology was utilized which conforms to generally accepted water cost of service approaches and methodologies
- Costs were distributed to each rate component based on industry standard approaches to specifically address the requirements of Proposition 218

3.6 Development of Cost-Based Water Rates

While there are various rate study goals and objectives, a key consideration in developing water rates, meeting the requirements of Proposition 218 - and documenting the steps taken to meet the requirements. Given this, the District's proposed water rates have been developed to meet the requirements of Article XIII D. A key component of Article XIII D is the development of rates which reflect the cost of providing service and which proportionally distributed such costs among the rate schedule components. There is no single prescribed methodology for allocating costs or proportionally distributing those costs to the rate components. The AWWA M1 Manual clearly delineates the different methodologies which may be used to establish cost-based rates. Article XIII D does not prescribe a particular methodology for establishing cost-based rates, consequently, HDR developed the District's proposed water rates based on the methodologies provided in the AWWA M1 Manual and the District's specific system and customer characteristics to meet the requirements of Article XIII D and provide an administrative record of the steps taken to establish the District's water rates.

HDR is of the opinion that the proposed rates comply with legal requirements of Article XIII D. HDR reaches this conclusion based upon the following:

- **The revenue derived from water rates does not exceed the funds required to provide the property related service (i.e., water service).** The proposed rates are designed to collect the overall revenue requirement of the District's water utility.
- **The revenues derived from water rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the District's water rates are used exclusively to operate and maintain the District's water system.
- **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** The cost of service analysis section of the Study has focused exclusively on the issue of proportional assignment of costs. The proposed rates reflect the varying customer characteristics and system requirements of the cost for each rate structure component. The grouping of rates creates the proportionality expected under Article XIII D by having differing rates which reflect both the level of revenue to be collected by the utility, but also the manner in which these costs are incurred and distributed based on the proportional impacts and burden placed on the District's water system.

The above discussion provides an overview of the requirements of setting rates to meet Proposition 218. The cost of service developed herein has developed a set of average unit costs which provide the cost-basis for the development of the proposed water rates for the District.

As a part of the Study, HDR has developed a water rate design discussion to clearly demonstrate and support the proposed water rates. The following discussion provides a more detailed analysis of the costing techniques and methodologies used to support the District's proposed rate design.

3.7 Summary Results of the Cost of Service Analysis

In summary form, the cost of service analysis began by functionalizing the District's revenue requirement for FY 2026, which is the first year of the rate setting period. The functionalized revenue requirement was then allocated to the appropriate cost component(s) based on industry standard cost of service methodologies. The allocated totals were then proportionally distributed to the specific rate structure components. The distributed expenses for were then aggregated to determine the overall revenue responsibility (i.e., cost to provide service). Provided below in Table 3 - 1 is the summary results of the District's water cost of service analysis and is found in Exhibit 8 in the Water Technical Appendix.

Table 3 - 1
Summary of the Water Cost of Service Analysis ($000)

	Present Rate Revenues	Distributed Costs	$ Difference	% Difference
Total	**$94**	**$127**	**($33)**	**35.0%**

The cost of service analysis allocated and proportionally distributed the revenue requirement for FY 2026 with the respective benefit received from and burdens placed on the water system to

the different rate components based on the service provided. It is important to understand that a cost of service analysis is based on one year's expense data and customer information. Given this, the results of the cost of service analysis may change from year to year. As the District continues to monitor water rates, implement metered service, and future cost of service studies, future cost of service adjustments may be necessary to reflect changes in costs.

3.8 Development of the Unit Costs for Rate Designs

To begin the assignment of costs related to rate components, the results of the cost of service analysis are utilized. The cost of service analysis allocated the revenue requirement between the cost components of average day use (commodity) and customer. Provided in Table 3 – 2 is a summary of the allocation of the FY 2026 revenue requirement from the cost of service analysis.

Table 3 - 2
Summary of the Allocation of the FY 2026 Revenue Requirement ($000)

	Total	Commodity Related	Customer Related
Total Revenue Requirement	**$127**	$102	$25

The total allocation of the FY 2026 revenue requirement, approximately $127,000, is then distributed. Given the requirement to provide the cost-basis the rate structure components, the allocated costs are distributed between the rate structure components directly. The costs in Table 3 – 2 are taken from Exhibit 7 in the Water Technical Appendix.

Provided below is a discussion of the approach used to proportionally distribute the revenue requirement to the rate components.

3.9 Commodity Average Unit Cost

To develop the commodity average unit costs, the distributed commodity costs were divided by the number of customers in the system as the District does not have meters in place to measure water consumption. Provided in Table 3 – 2 is a summary of the commodity average unit cost development and is taken Exhibit 7 of the Water Technical Appendix.

Table 3 – 2
Summary of the Commodity Average Unit Cost

Reference Calculation	A	B	C C = A / B
	Distributed Commodity Costs	# of Customers	Commodity Unit Cost
Water Service Charge	**$102,215**	**248**	**$412**

As can be seen, the development of the commodity average unit costs is straightforward and based on number of customers. The total commodity-related costs in Column A are taken from Table 3 – 1. Then, the distributed costs in Column A are divided by the total customers shown in Column B. The average unit costs are stated in $ / customer in Column C which is the same basis as in the rate design given that the District does not have meters in place to determine water consumption.

3.10 Customer Average Unit Cost

Customer costs vary with the number of customers on the system. The customer related average unit costs were developed by dividing the distributed customer costs by the total number of customers. Table 3 – 3 provides a summary of the customer average unit costs and is taken from Exhibit 7 in the Water Technical Analysis.

Table 3 – 3
Summary of the Customer Average Unit Cost

Reference Calculation	A	B	C C = A / B
	Distributed Customer Costs	# of Customers	Customer Unit Cost
Standby Charge	**$25,009**	**248**	**$101**

Given that the customers are currently unmetered, the total customer related cost was allocated to customer related. Once meters are in place, and consumption data is available, the District will be able to develop additional distribution factors (i.e., capacity factor) to further proportionally distribute in the cost of service.

3.11 Consultant's Conclusions and Recommendations

Given the requirements of Article XIII D, section 6, the results of the cost of service will be used to establish the proposed rate designs for the District's water customers. More specifically, it is recommended that the unit costs derived from the cost of service results be utilized as the basis for the rate design in Section 4.

3.12 Summary of the Cost of Service Analysis

This section of the report has provided the recommendations resulting from the cost of service analysis developed for the District's water utility. This analysis was prepared using generally accepted cost of service techniques as provided in the AWWA M1 Manual and the District's system and customer characteristics to meet the proportionality requirements of Proposition 218. The Technical Appendix shows the detail of the cost of service analysis in Exhibits 6 – 8. The following section of the report will provide a summary of the present and proposed rates for the District's water utility.

4 Rate Design Analysis

The final step of the District's comprehensive water rate study is the design of proposed rates to collect the appropriate levels of revenues, based on the results of both the revenue requirement and the cost of service analyses. In developing the District's proposed water rates, consideration is given to the ***level*** of the rates as well as the ***structure*** of the rates. The level of rates reflects the amount of revenues that should be collected while the structure of the rates is how it is collected (i.e., rate component charges) from the customers.

The overall revenue level for the District's has been established in the revenue requirement analysis (Section 2) while the proportional distribution of costs has been developed in the cost of service analysis (Section 3) which provides the revenue levels to be collected based on cost causation and the average unit costs for each rate component.

4.1 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria that are considered when setting utility rates. Some of these rate design criteria are listed below:

- Rates which are easy to understand from the customer's perspective
- Rates which are easy for the District to administer
- Consideration of the customer's ability to pay
- Cost-based and equitable
- Continuity, over time, of the rate making philosophy
- Policy considerations (encourage efficient use, economic development, etc.)
- Provide revenue stability from month to month and year to year
- Promote efficient allocation of the resource
- Proportional and non-discriminatory (cost-based)
- Legally Defensible (Proposition 218 compliant)

It is important that the District provide its water customers with a proper and accurate price signal as to what their usage characteristics are costing. This goal may be approached through both rate level and structure. When developing the proposed water rate designs, all the above listed criteria were taken into consideration. However, it should be noted that it is difficult - if not impossible - to design a rate that meets all the goals and objectives listed above. A good example of this is that it may be difficult to design a rate that takes into consideration the customer's ability to pay while also being cost-based. In designing rates, there are always trade-offs between these various goals and objectives.

4.2 Overview of the Proposed Rate Structures

In discussion with District staff several of the above goals and objectives were highlighted as key elements to be included within the proposed rate structure. These were:

- Equitable, proportional, and cost-based
- Revenue stability

The main goal was to provide the cost-basis, or justification, for the proposed rates to reflect the rate setting requirements in California (i.e., Proposition 218). This was accomplished through the development of the cost of service analysis using industry standard approaches (AWWA M1 Manual) and the District's system and customer characteristics. The cost of service analysis provided the equitable allocation and proportional distribution of costs to each of the rate components (water service charge and standby charge) as developed in the average unit costs (Section 3 of this report) for purposes of final proposed water rates.

4.3 Summary of the Present and Proposed Water Rates

The proposed water rates for the District's water utility were designed to meet the total system revenue needs discussed in Section 2 and the cost of service results, including the average unit cost, shown in Section 3. The proposed water rates have been developed based on the cost of service analysis and specifically the average unit costs.

4.3.1 Review of the Present and Proposed Water Rates

The District's proposed rate structure maintains the current structure. The current rate structure consists of annual water service and standby fixed charges. As noted, the District does not have meters in place to determine individual customer consumption. Based on the results of the Study, the water service charge is a commodity related charge reflecting costs incurred due to providing water service. Whereas the standby charge is a customer related charge for ensuring adequate water service is available for a customer when demanded. The adjustments for each of the fixed charges are based on the cost of service results and specifically the average unit costs calculation. Provided below in Table 4 - 1 is a summary of the District's present and proposed water rates.

Table 4 – 1
Summary of the Present and Proposed Water Rates

	Present Rates	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
	$ / Acct. / Yr.					
Water Service Charge	$300	$412	$519	$625	$731	$837
Standby Charge	80	101	127	153	179	205
Total	**$380**	**$513**	**$646**	**$778**	**$910**	**$1,042**

The proposed rates in Table 4 – 1 for FY 2026 show that the total fixed charges are $513 / year. This is based on the results of the average unit costs developed in the cost of service and previously summarized in Tables 3 – 2 and 3 – 3.

4.4 Water Rate Study Recommendations

Based on the results of the District's water rate study, HDR recommends the following:

- Rate revenues for the District's water utility should be increased in FY 2026 through FY 2030
- The proposed water rates should be implemented to reflect the proportional distribution of costs
- The rates are proposed to be implemented and effective each year on July 1
- When funds are available, increase the level of annual replacement funding to transition towards funding an amount greater than the District's annual depreciation expense levels
- Prior to the implementation of the fifth, and final, proposed rate adjustment the District should complete another comprehensive review of the water rates

4.5 Summary of the Water Rate Study

This completes the water rate analysis for the District's water utility. The Study has provided a comprehensive review and development of proposed water rates for the District. The adoption of the proposed water rates will allow the District to meet their current and projected water system financial obligations for the time period reviewed based on the assumed customer growth, capital plan, and projected increases in operating costs. Should these assumptions change, the proposed rate adjustments may also need to be revised to reflect the changed conditions.

4.6 Proposition 218

Given the requirements of what is commonly referred to as Proposition 218, a process must be utilized in order to adopt and implement a change in the District's water rates. The first requirement is that the proposed rates must be cost-based or justified and that is the reason the District has developed the Study. Once the cost basis for the proposed water rates have been calculated, a public notice process must be undertaken in order to move forward with the adoption of the proposed rates. This begins with the presentation of the proposed rates to the District's Board of Directors. If the proposed rates are acceptable and prudent, the Board can direct staff to prepare and mail the Proposition 218 notices to the District's customers which outlines the changes in water rates and the time, date, and location of the public hearing.

Water Technical Appendix

McKinney Water District
Water Rate Study
Revenue Requirement Summary
Exhibit 1

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Revenue										
Rate Revenues	$94,240	$94,240	$94,240	$94,240	$94,240	$94,240	$94,240	$94,240	$94,240	$94,240
Non-Operating Revenues	226,523	222,067	218,753	226,196	232,035	238,426	247,758	246,245	244,984	257,777
Total Revenues	**$320,763**	**$316,307**	**$312,993**	**$320,436**	**$326,275**	**$332,666**	**$341,998**	**$340,485**	**$339,224**	**$352,017**
Expenses										
O&M	$167,012	$112,909	$119,160	$124,227	$129,294	$139,050	$144,160	$149,325	$154,676	$160,221
Debt Service	0	0	(0)	(0)	(0)	(0)	(0)	(0)	0	0
Rate Funded Capital	150,000	235,000	255,000	290,000	325,000	355,000	375,000	380,000	385,000	405,000
Reserve Funding	3,751	1,382	4,895	5,132	3,743	3,148	1,603	4,941	7,729	10,099
Total Revenue Requirement	**$320,763**	**$349,291**	**$379,055**	**$419,360**	**$458,037**	**$497,198**	**$520,763**	**$534,265**	**$547,405**	**$575,319**
Bal. / Def.) of Funds	$0	($32,984)	($66,062)	($98,924)	($131,762)	($164,532)	($178,765)	($193,780)	($208,181)	($223,302)
Bal. / (Def.) as a % of Rate Rev.	0.0%	35.0%	70.1%	105.0%	139.8%	174.6%	189.7%	205.6%	220.9%	237.0%
Proposed Rate Adjustment	**0.0%**	**35.0%**	**26.0%**	**20.5%**	**17.0%**	**14.5%**	**5.5%**	**5.5%**	**5.0%**	**5.0%**
Add'l Revenue from Adj.	$0	$32,984	$66,062	$98,924	$131,762	$164,532	$178,765	$193,780	$208,181	$223,302
Total Bal/(Def.) of Funds	$0	$0	$0	$0	$0	$0	$0	($0)	$0	$0
Additional Rate Increase Needed	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Avg Res Annual Bill - Water Service	**$380.00**	**$513.00**	**$646.38**	**$778.89**	**$911.30**	**$1,043.44**	**$1,100.83**	**$1,161.37**	**$1,219.44**	**$1,280.41**
Total Ending Balance	**$1,240,818**	**$239,003**	**$498,898**	**$564,525**	**$655,731**	**$768,028**	**$1,144,632**	**$163,575**	**$556,304**	**$971,403**
Total Target	*$167,012*	*$112,909*	*$119,160*	*$124,227*	*$129,294*	*$139,050*	*$144,160*	*$149,325*	*$154,676*	*$160,221*

McKinney Water District
Water Rate Study
Exhibit 2
Escalation Factors

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034
Revenues										
Customer Growth	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Property Tax Revenue	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Misc Revenues	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Expenses										
Labor	Budgeted	5.0%	5.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Professional Srvcs	Budgeted	5.0%	5.0%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Materials & Supplies	Budgeted	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Equipment	Budgeted	5.0%	5.0%	5.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Miscellaneous	Budgeted	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Utilities	Budgeted	7.5%	7.5%	5.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Insurance	Budgeted	9.5%	9.5%	9.5%	9.5%	5.0%	5.0%	4.0%	4.0%	4.0%
Flat	Budgeted	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rate Revenue Adj	0.0%	35.0%	26.0%	20.5%	17.0%	14.5%	5.5%	5.5%	5.0%	5.0%
CIP Inflation	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Interest	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
New Debt Service										
Low Interest Loans										
Term in Years	20	20	20	20	20	20	20	20	20	20
Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%
Revenue Bond										
Term in Years	20	20	20	20	20	20	20	20	20	20
Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

McKinney Water District
Water Rate Study
Exhibit 3
Revenue Requirement

	Budget	*Projected*								
	FY 2025	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	**FY 2033**	**FY 2034**	***Notes***
Revenues											
Rate Revenues											
Water Service	$74,400	$74,400	$74,400	$74,400	$74,400	$74,400	$74,400	$74,400	$74,400	$74,400	As Customer Growth
Standyby Charge	19,840	19,840	19,840	19,840	19,840	19,840	19,840	19,840	19,840	19,840	As Customer Growth
Total Rate Revenues	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	**$94,240**	
Non-Operating Revenues											
Interest Income	$23,279	$14,798	$7,379	$10,634	$12,203	$14,238	$19,127	$13,082	$7,199	$15,277	As Misc Revenues
Other Income - Court Settlement	0	0	0	0	0	0	0	0	0	0	As Misc Revenues
El Dorado County - Demand Allocation	57,120	58,262	59,428	60,616	61,829	63,065	64,326	65,613	66,925	68,264	As Property Tax Revenue
Placer County - Demand Allocation	143,632	146,505	149,435	152,423	155,472	158,581	161,753	164,988	168,288	171,654	As Property Tax Revenue
Inspection Fees	0	0	0	0	0	0	0	0	0	0	As Misc Revenues
Water Service on/off and Connections	804	808	812	816	820	824	828	833	837	841	As Misc Revenues
Water Service Late Fees from Previous Year	1,176	1,182	1,188	1,194	1,200	1,206	1,212	1,218	1,224	1,230	As Misc Revenues
Standby Charge - Unimproved	512	512	512	512	512	512	512	512	512	512	As Customer Growth
Total Non-Operating Revenues	**$226,523**	**$222,067**	**$218,753**	**$226,196**	**$232,035**	**$238,426**	**$247,758**	**$246,245**	**$244,984**	**$257,777**	
Total Revenues	**$320,763**	**$316,307**	**$312,993**	**$320,436**	**$326,275**	**$332,666**	**$341,998**	**$340,485**	**$339,224**	**$352,017**	
Employee Compensation											
Regular Monthly Meetings - Directors	$6,000	$6,300	$6,615	$6,847	$7,086	$7,334	$7,591	$7,857	$8,132	$8,416	As Labor
Extra Monthly Meeting - Directors	500	525	551	571	591	611	633	655	678	701	As Labor
Sec/Treas. Compensation	24,000	25,200	26,460	27,386	28,345	29,337	30,363	31,426	32,526	33,665	As Labor
District Agent - Well Pump Station	12,600	13,230	13,892	14,378	14,881	15,402	15,941	16,499	17,076	17,674	As Labor
Meeting Host	540	567	595	616	638	660	683	707	732	757	As Labor
General & Administrative											
Office Supplies	1,000	1,040	1,082	1,114	1,147	1,182	1,217	1,254	1,291	1,330	As Materials & Supplies
Cell Phone Expenses	2,600	2,704	2,812	2,897	2,983	3,073	3,165	3,260	3,358	3,459	As Materials & Supplies
Website Management	1,000	1,040	1,082	1,114	1,147	1,182	1,217	1,254	1,291	1,330	As Materials & Supplies
Electric Utility	11,000	11,825	12,712	13,347	13,881	14,437	15,014	15,615	16,239	16,889	As Utilities
Water Purchased	5,000	5,375	5,778	6,067	6,310	6,562	6,825	7,098	7,381	7,677	As Utilities
Liability Insurance	8,572	9,386	10,278	11,254	12,323	12,940	13,586	14,130	14,695	15,283	As Insurance
Payroll Tax	4,000	4,200	4,410	4,564	4,724	4,889	5,061	5,238	5,421	5,611	As Labor
Regulatory Permits and Fees	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	As Miscellaneous
Professional Fee's Eng.	5,000	5,250	5,513	5,705	5,905	6,112	6,326	6,547	6,776	7,013	As Professional Srvcs
General Election Costs	0	0	0	0	0	0	0	0	0	0	As Miscellaneous
Travel	600	618	637	656	675	696	716	738	760	783	As Miscellaneous
Payroll and Bank Service Charges	300	309	318	328	338	348	358	369	380	391	As Miscellaneous
Dues/Subscriptions	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567	As Miscellaneous
Operation & Maintenance											
DA Source Maintenance	8,000	8,400	8,820	9,129	9,448	9,779	10,121	10,475	10,842	11,222	As Professional Srvcs
Engineering Prep for Future Line Replacements	60,000	0	0	0	0	0	0	0	0	0	As Professional Srvcs
Water Testing - Lab Fees	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	As Miscellaneous
Pump Fuel	500	520	541	557	574	591	609	627	646	665	As Materials & Supplies
Snow Removal	1,800	1,890	1,985	2,054	2,126	2,200	2,277	2,357	2,439	2,525	As Professional Srvcs
Flow Meter Replacement	5,000	5,250	5,513	5,788	6,020	6,260	6,511	6,771	7,042	7,324	As Equipment
Misc. Materials and Parts	1,000	1,040	1,082	1,114	1,147	1,182	1,217	1,254	1,291	1,330	As Materials & Supplies
Roof, Gates Fences, Signs, Permits, etc.	500	515	530	546	563	580	597	615	633	652	As Miscellaneous
Total Operations & Maintenance	**$167,012**	**$112,909**	**$119,160**	**$124,227**	**$129,294**	**$134,050**	**$138,985**	**$143,968**	**$149,132**	**$154,483**	

McKinney Water District
Water Rate Study
Exhibit 3
Revenue Requirement

	Budget	*Projected*								
	FY 2025	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	**FY 2033**	**FY 2034**	***Notes***
Future O&M											
Meter Reading - New Meters	$0	$0	$0	$0	$0	$5,000	$5,175	$5,356	$5,544	$5,738	As Professional Srvcs
Total Future O&M	**$0**	**$0**	**$0**	**$0**	**$0**	**$5,000**	**$5,175**	**$5,356**	**$5,544**	**$5,738**	
Total Operations & Maintenance	**$167,012**	**$112,909**	**$119,160**	**$124,227**	**$129,294**	**$139,050**	**$144,160**	**$149,325**	**$154,676**	**$160,221**	
Debt Service											
Existing	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
New SRF Loans	0	0	0	0	0	0	0	0	0	0	Calc @ 2.5% for 20 Yrs
New Revenue Bonds	0	0	(0)	(0)	(0)	(0)	(0)	(0)	0	0	Calc @ 4.5% for 20 Yrs
Total Debt Service	**$0**	**$0**	**($0)**	**($0)**	**($0)**	**($0)**	**($0)**	**($0)**	**$0**	**$0**	
Rate Funded Capital	**$150,000**	**$235,000**	**$255,000**	**$290,000**	**$325,000**	**$355,000**	**$375,000**	**$380,000**	**$385,000**	**$405,000**	$64,083 FY 2024 Dep. Exp.
Reserve Funding											
To/(From) Operating Reserve	$3,751	$1,382	$4,895	$5,132	$3,743	$3,148	$1,603	$4,941	$7,729	$10,099	
To/(From) Capital Reserve	0	0	0	0	0	0	0	0	0	0	
Total Reserve Funding	**$3,751**	**$1,382**	**$4,895**	**$5,132**	**$3,743**	**$3,148**	**$1,603**	**$4,941**	**$7,729**	**$10,099**	
Total Revenue Requirement	**$320,763**	**$349,291**	**$379,055**	**$419,360**	**$458,037**	**$497,198**	**$520,763**	**$534,265**	**$547,405**	**$575,319**	
Bal/(Def.) of Funds	$0	($32,984)	($66,062)	($98,924)	($131,762)	($164,532)	($178,765)	($193,780)	($208,181)	($223,302)	
Rate Adj. as a % of Rate Rev.	0.0%	35.0%	70.1%	105.0%	139.8%	174.6%	189.7%	205.6%	220.9%	237.0%	
Proposed Rate Adjustment	**0.0%**	**35.0%**	**26.0%**	**20.5%**	**17.0%**	**14.5%**	**5.5%**	**5.5%**	**5.0%**	**5.0%**	
Effective Months	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	*12*	
Add'l Revenue from Adj.	$0	$32,984	$66,062	$98,924	$131,762	$164,532	$178,765	$193,780	$208,181	$223,302	
Total Bal/(Def.) of Funds	$0	$0	$0	$0	$0	$0	$0	($0)	$0	$0	
Additional Rate Increase Needed	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	

McKinney Water District
Water Rate Study
Exhibit 3
Revenue Requirement

	Budget	*Projected*								
	FY 2025	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**FY 2031**	**FY 2032**	**FY 2033**	**FY 2034**	***Notes***
Avg Res Annual Bill - Water Service											
After Proposed Rate Adjustment	$380.00	$513.00	$646.38	$778.89	$911.30	$1,043.44	$1,100.83	$1,161.37	$1,219.44	$1,280.41	
$ Change	0.00	133.00	133.38	132.51	132.41	132.14	57.39	60.55	58.07	60.97	
Cumulative Change	0.00	133.00	266.38	398.89	531.30	663.44	720.83	781.37	839.44	900.41	
Reserve Funds											
Beginning Balance	**$1,087,067**	**$1,240,818**	**$239,003**	**$498,898**	**$564,525**	**$655,731**	**$768,028**	**$1,144,632**	**$163,575**	**$556,304**	
Operating Reserve											
Beginning Balance	**$583,578**	**$587,329**	**$239,002**	**$243,898**	**$249,030**	**$252,773**	**$255,921**	**$257,525**	**$163,574**	**$171,304**	
Plus: Additions	3,751	1,382	4,895	5,132	3,743	3,148	1,603	4,941	7,729	10,099	
Less: Uses of Funds	0	(349,708)	0	0	0	0	0	(98,891)	0	0	
Ending Balance	**$587,329**	**$239,002**	**$243,898**	**$249,030**	**$252,773**	**$255,921**	**$257,525**	**$163,574**	**$171,304**	**$181,402**	
Target: 365 days of O&M	*$167,012*	*$112,909*	*$119,160*	*$124,227*	*$129,294*	*$139,050*	*$144,160*	*$149,325*	*$154,676*	*$160,221*	
Capital Reserve											
Beginning Balance	**$503,489**	**$653,489**	**$0**	**$255,000**	**$315,495**	**$402,958**	**$512,107**	**$887,107**	**$0**	**$385,000**	
Plus: Additions	150,000	0	255,000	60,495	87,463	109,149	375,000	0	385,000	405,000	
Less: Uses of Funds	0	(653,489)	0	0	0	0	0	(887,107)	0	0	
Ending Balance	**$653,489**	**$0**	**$255,000**	**$315,495**	**$402,958**	**$512,107**	**$887,107**	**$0**	**$385,000**	**$790,000**	
Total Ending Balance	**$1,240,818**	**$239,003**	**$498,898**	**$564,525**	**$655,731**	**$768,028**	**$1,144,632**	**$163,575**	**$556,304**	**$971,403**	

McKinney Water District
Water Rate Study
Exhibit 4
Capital Improvement Plan

Inflation	**3.5%**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	*Total*
Capital Improvements												
Install Water Meters	$0	$0	$0	$0	$229,505	$237,537	$245,851	$0	$0	$0	$0	$712,893
McKinney Rubicon Springs/McKinney Creek - Phase I	0	0	1,125,634	0	0	0	0	0	0	0	0	1,125,634
Rubicon/McKinney Creek Contingency	0	0	112,563	0	0	0	0	0	0	0	0	112,563
Bellevue/Knobcone - Phase 2	0	0	0	0	0	0	0	0	1,241,817	0	0	1,241,817
Bellevue/Knobcone Contingency	0	0	0	0	0	0	0	0	124,182	0	0	124,182
Total Capital Improvements	**$0**	**$0**	**$1,238,197**	**$0**	**$229,505**	**$237,537**	**$245,851**	**$0**	**$1,365,998**	**$0**	**$0**	**$3,317,088**
Future Unidentified Projects	$193,933	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$193,933
To Capital Reserves	$0	$150,000	$0	$255,000	$60,495	$87,463	$109,149	$375,000	$0	$385,000	$405,000	$1,827,107
Total Capital Improvement Projects	**$193,933**	**$150,000**	**$1,238,197**	**$255,000**	**$290,000**	**$325,000**	**$355,000**	**$375,000**	**$1,365,998**	**$385,000**	**$405,000**	**$5,338,128**
Less: Outside Funding Sources												
Operating Reserve	$0	$0	$349,708	$0	$0	$0	$0	$0	$98,891	$0	$0	$448,599
Capital Reserves	0	0	653,489	0	0	0	0	0	887,107	0	0	1,540,596
New SRF Loans	0	0	0	0	0	0	0	0	0	0	0	0
New Revenue Bonds	0	0	(0)	0	(0)	0	0	0	0	0	0	0
Total Outside Funding Sources	**$0**	**$0**	**$1,003,197**	**$0**	**($0)**	**$0**	**$0**	**$0**	**$985,998**	**$0**	**$0**	**$1,989,195**
Rate Funded Capital	**$193,933**	**$150,000**	**$235,000**	**$255,000**	**$290,000**	**$325,000**	**$355,000**	**$375,000**	**$380,000**	**$385,000**	**$405,000**	**$3,348,933**

McKinney Water District
Water Rate Study
Exhibit 5
Revenues at Present Rates

		January	February	March	April	May	June	July	August	September	October	November	December	Total
Residential														
Water Service Fee	*$ / Acct. / Annual*													
Water Service	$300.00													
# of Customers		248	248	248	248	248	248	248	248	248	248	248	248	248
Monthly Charge		$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	$25.00	
		$6,200	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$6,200**	**$74,400**
Standby Charge	$64.00													
# of Customers		8	8	8	8	8	8	8	8	8	8	8	8	8
Monthly Charge		$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	$5.33	
		$43	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$43**	**$512**
Standby Charge	$80.00													
# of Customers		248	248	248	248	248	248	248	248	248	248	248	248	248
Monthly Charge		$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	$6.67	
		$1,653	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$1,653**	**$19,840**
Total Residential		**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$94,752**

McKinney Water District
Water Rate Study
Exhibit 5
Revenues at Present Rates

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Summary													
Customer													
Water Service	248	248	248	248	248	248	248	248	248	248	248	248	248
Standby Charge	8	8	8	8	8	8	8	8	8	8	8	8	8
Standby Charge	248	248	248	248	248	248	248	248	248	248	248	248	248
	504	**504**	**504**	**504**	**504**	**504**	**504**	**504**	**504**	**504**	**504**	**504**	**504**
Fees													
Water Service	25	25	25	25	25	25	25	25	25	25	25	25	300
Standby Charge	5	5	5	5	5	5	5	5	5	5	5	5	64
Standby Charge	7	7	7	7	7	7	7	7	7	7	7	7	80
	37	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**444**
Total Revenue													
Water Service	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$6,200	$74,400
Standby Charge	43	43	43	43	43	43	43	43	43	43	43	43	512
Standby Charge	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	1,653	19,840
	$7,896	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$7,896**	**$94,752**
												FY 2024 Actual	**$95,712**
												Difference	*($960)*
												Percent	*-1.0%*