

# LAKE DON PEDRO COMMUNITY SERVICES DISTRICT

---

*Water Rate Study*

**DRAFT** *Report*

November 2024



[nbsgov.com](http://nbsgov.com)

# TABLE OF CONTENTS

---

<b>1. Introduction .....</b>	<b>1</b>
1.1 Purpose.....	1
1.2 Overview of the Study .....	1
<b>2. Water Rate Study .....</b>	<b>6</b>
2.1 Key Water Rate Study Issues.....	6
2.2 Financial Plan .....	6
2.3 Cost-of-Service Analysis .....	8
2.4 Characteristics of Water Customers by Customer Class .....	10
2.5 Rate Design Analysis .....	12
2.6 Proposed Water Rates .....	14
2.7 Comparison of Current and Proposed Water Bills .....	16
<b>3. Recommendations and Next Steps .....</b>	<b>18</b>
3.1 Consultant Recommendations.....	18
3.2 Next steps .....	18
3.3 NBS' Principal Assumptions and Considerations.....	18
<b>Technical Appendices .....</b>	<b>19</b>
<b>Appendix A. Water Rate Study Tables and Figures.....</b>	<b>20</b>

# TABLE OF FIGURES

---

Figure 1. Primary Components of a Rate Study.....	2
Figure 2. Summary of Water Revenue Requirements.....	8
Figure 3. Summary of Primary Water Reserve Funds.....	8
Figure 4. Allocation Percentages of Revenue Requirements .....	10
Figure 5. Allocated Net Revenue Requirements .....	10
Figure 6. Water Consumption by Customer Class .....	11
Figure 7. Capacity Allocation Factors by Customer Class .....	11
Figure 8. Number of Meters by Customer Class.....	12
Figure 9. Hydraulic Capacity Factors .....	13
Figure 10. Equivalent Meters .....	13
Figure 11. Calculation of Fixed Service Charges .....	14
Figure 12. Uniform Tier Rates for FY 2024/25.....	14
Figure 13. Current and Proposed Water Rates .....	15
Figure 14. Monthly Water Bill Comparison for Residential Customers – Preferred Alternative 2 .....	16
Figure 15. Residential Bills Comparison for Similar Communities.....	17

# 1. Introduction

---

## 1.1 Purpose

Lake Don Pedro Community Services District (District) retained NBS to conduct a study of the water rates. The District had several objectives and goals in mind for this study including meeting revenue requirements, reviewing the rising costs of providing services, funding capital improvements and changes in costs, and complying with certain legal requirements (e.g., California Constitution Article XIII D, Section 6, which is commonly referred to as Proposition 218 [Prop 218]). The District's broader objectives in this study include ensuring adequate funding for operating and capital costs, maintaining reasonable reserves, and ensuring revenue stability in utility rates. The rates resulting from this study were developed in a manner that is consistent with industry standard cost-of-service principles. In addition to documenting the rate study methodology, this report is provided with the intent to assist the District in its continuing effort to maintain transparent communications with the residents and community it serves.

In developing new rates for the District's water utility, NBS worked cooperatively with District staff and the District's Board of Directors (Board) in selecting appropriate rate alternatives that address the District's goals and objectives. Based on input provided by District staff, NBS proposes the rates summarized in this report, which were developed in a manner that is consistent with industry standard cost of service principles. The Board has the final decision regarding the adoption of the proposed rates and whether to proceed with the Prop 218 approval process.

## 1.2 Overview of the Study

Comprehensive rate studies, such as this one, typically include three components: (1) preparation of a financial plan that identifies the net revenue requirements for the utility; (2) analysis of the cost to serve each customer class, and (3) the rate structure design. These steps are shown in Figure 1 and are intended to follow industry standards and reflect the fundamental principles of cost-of-service rate making embodied in the American Water Works Association's (AWWA) *Principles of Water Rates, Fees, and Charges*,<sup>1</sup> also referred to as Manual M1.

Rate studies also address requirements under Prop 218 that rates not exceed the cost of providing the service and be proportionate to the cost of providing service for all customers. In terms of the chronology of the study, the three steps shown in Figure 1 represent the order in which they were performed in this study.

---

<sup>1</sup> *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, American Water Works Association (AWWA), 7<sup>th</sup> Edition, 2017.

**Figure 1. Primary Components of a Rate Study**



NBS projected revenues and expenditures, developed net revenue requirements, performed cost-of-service rate analyses, and developed new water rates for the District using this approach. The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and rates developed. Detailed tables and figures documenting the development of the proposed rates are provided in the Appendices.

The District provided NBS with the data necessary to conduct the study, including historical, current, and projected revenues and expenditures, number of customer accounts, and water consumption data along with other operational and capital cost information.

### **FINANCIAL PLAN**

As a part of the rate study, NBS projected revenues and expenditures on a cash-flow basis for the next five (5) years. The amount of rate revenue required, that will allow reserves to be maintained at the recommended levels, is known as the net revenue requirement. As current rate revenue falls short of the net revenue requirement, rate adjustments – or more accurately, adjustments in the total revenue collected from rates – are recommended. This report presents an overview of the methodologies, assumptions, and data used along with the financial plan and proposed rates developed in this study.<sup>2</sup>

### **COST-OF-SERVICE ANALYSIS**

The basic purpose of the cost-of-service analysis (COSA) is to fairly and equitably allocate costs to customer classes. The cost-of-service analysis consists of two major components: (1) the classification of expenses, and (2) the allocation of costs to customer classes. For example, a key task is the “classification” of the water system revenue requirements into the following categories:

- Commodity related costs
- Capacity related costs
- Customer service-related costs

<sup>2</sup> The complete financial plan is available in the *Appendices*.

Together, these allocation factors represent the cost allocation classifications used in the cost of service analysis. Further details are discussed below and documented in the *Appendices*.

## RATE DESIGN ANALYSIS

During the rate design phase of the study, NBS and District staff worked together to develop rate alternatives that will meet the District's objectives. It is important for the District to send proper price signals to its customers about the actual cost of providing service. This objective is typically addressed through both the magnitude of the rate adjustments and the rate structure design. In other words, both the amount of revenue collected and the way in which the revenue is collected from customers are important.

Several criteria are typically considered in setting rates and developing sound rate structures. The fundamentals of this process have been well documented in several rate-setting manuals, such as AWWA's Manual M1. The foundation for evaluating rate structures is generally credited to James C. Bonbright in *Principles of Public Utility Rates*,<sup>3</sup> which outlines pricing policies, theories, and economic concepts along with various rate designs. The following is a simplified list of the attributes of a sound rate structure:

- Rates should be easy to understand from the customer's perspective.
- Rates should be easy to administer from the utility's perspective.
- Rates should be equitable and non-discriminating (i.e., cost-based).
- Rates should promote the efficient allocation of the resource.
- There should be continuity in the rate making philosophy over time.
- Rates should address other utility policies (e.g., conservation and economic development).
- Rates should provide month-to-month and year-to-year revenue stability.

## RATE STRUCTURE TERMINOLOGY

This section covers basic rate design criteria that NBS and District staff considered as a part of their review of the rate structure alternatives. One of the most fundamental points in considering rate structures is the relationship between fixed and variable costs. Fixed costs, such as debt service and personnel costs, typically do not vary with the amount of water consumed. In contrast, variable costs, such as the cost of purchased water, chemicals, and electricity, tend to change with the quantity of water sold. Most rate structures contain a fixed, or minimum, charge in combination with a volumetric charge.

**Fixed Charges** – Fixed charges can be called base charges, minimum monthly charges, customer charges, fixed meter charges, etc. Fixed charges for water utilities typically increase by meter size. For example, a customer with a 2-inch meter has a fixed meter charge that is more than five times greater than the typical residential customer based on the safe operating capacity of the meter.<sup>4</sup> Since a large portion of utility costs are typically related to meeting capacity requirements, individual capacity demands are important in establishing equitable rates for customers.

---

<sup>3</sup> James C. Bonbright, Albert L. Danielsen, and David R. Kamerschen, *Principles of Public Utility Rates*, Arlington, VA: Public Utilities Report, Inc., Second Edition, 1988, pp. 383-384.

<sup>4</sup> *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7<sup>th</sup> Edition, 2017, pp. 151-152.

**Variable (Consumption-Based) Charges** – In contrast to fixed charges, variable costs, such as purchased water, groundwater replenishment costs, and the cost of electricity used in pumping water and chemicals for treatment, tend to change with the quantity of water produced. For a water utility, variable charges are calculated based on a metered consumption per unit price (e.g., per 100 cubic feet, or HCF).

**Uniform (Single-Tier) Water Rates** – There are significant variations in the basic philosophy of variable charge rate structure alternatives. Under a uniform (single tier) rate structure, the cost per unit does not change with consumption and, therefore, provides a simple and straightforward approach from the customer’s perspective and in terms of the District’s rate administration.

**Tiered Water Charges** – The 2015 San Juan Capistrano court decision held that water agencies may only charge tiered rates if they can show that the tiered rates are proportionate to the agency’s higher costs to serve those customers, meaning that caution must be used to ensure that customers are appropriately allocated costs that meet legal requirements. The District now uses the uniform rate structure. Tiered water rates were discontinued in the previous rate study because source of supply data and costs do not lend themselves to using tiered rates for the District’s water customers and they would be difficult to defend under Prop 218 from a legal standpoint.

## KEY FINANCIAL ASSUMPTIONS

The following is a summary of the key financial assumptions used in the analyses. The following capital and operational fund targets reflect input from District staff to meet specific utility objectives.

**Funding of Capital Projects** – The capital improvement costs will be funded with a combination of cash in reserves and the additional revenue generated from the proposed rate increases. The capital projects listed in the financial plan are from the District’s capital improvement program. The analysis assumes:

- Capital costs attributable to existing customers are funded using rate revenue, grants and a loan.

**Reserve Targets** – For each utility (i.e., water and wastewater), the District maintains reserves for operations, capital, and other specific needs. The details of each utility’s reserve targets are covered in their respective sections of this report.

**Inflation and Growth Projections** – Assumptions were made in the analysis regarding cost inflation to project future revenues and expenses for the study period. The following inflation factors were used in the analysis:

- Customer growth is estimated at 0.00% per year.
- General cost inflation is set at 3.45% annually.
- Labor cost inflation is set at 3.02% annually.
- Chemical cost inflation is set at 5.45% annually.
- Fuel & Utilities cost inflation is set at 7.08% annually.
- Electricity cost inflation is set at 8.35% annually.
- Construction Cost inflation is set at 3.5% annually.

These inflation factors are based on long-term trends; therefore, the District should re-examine these factors in another year to assess the impacts on utility costs and whether projected rate increases will be sufficient for the remainder of the rate adoption period.

DRAFT



## 2. Water Rate Study

---

### 2.1 Key Water Rate Study Issues

The District's water rate analysis was undertaken with a few specific objectives, including:

- Generating sufficient revenue to meet anticipated operating and maintenance costs and fund necessary capital improvement projects for the next five years.
- Continuing with a rate design that promotes revenue stability.
- Verifying the cost-of-service linkage between the current rate structure and the proposed water rates.
- Maintaining adequate reserve levels to ensure continuity in operations.
- Complying with the legal requirements of Prop 218 to ensure the cost of providing service is properly allocated amongst user classifications.

NBS developed various water rate alternatives as requested by District staff over the course of this study. All rate structure alternatives relied on industry standards and cost-of-service principles. The rate alternative that will ultimately be implemented is the decision of the Board of Directors. The fixed and volume-based charges were calculated based on the net revenue requirements, number of customer accounts, water consumption and estimated water discharge, and other relevant data provided by the District.

The following are the basic components included in this analysis:

**Developing Cost Allocations** – The water revenue requirements were “functionalized” into three categories: (1) commodity (or volume-based) costs; (2) fixed capacity costs; and (3) customer service costs. These functionalized costs were then used to develop unit costs based on various factors, such as water consumption, peaking factors, and number of accounts by meter size.

**Determining Revenue Requirements by Customer Class** – The total revenue that needs to be collected from each customer class was determined using the functional costs and allocation factors. For example, customer costs are allocated based on the number of meters, while volume-related costs are allocated based on the water consumption of each customer class. Once the costs are allocated and the net revenue requirement for each customer class is determined, collecting the revenue requirements from each customer class is addressed within the rate design.

**Evaluating Rate Design (Fixed vs. Volumetric Charges)** – The revenue requirements for each customer class are collected through a combination of fixed monthly service charges and volumetric rates. Two alternatives are presented for consideration.

### 2.2 Financial Plan

It is important for utilities to not only collect sufficient revenues every year, but to also maintain reasonable reserves to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices. Rate adjustments are governed by the need to meet operating and capital costs as well as maintain reasonable reserve levels. The current state of the District's water utility, regarding these objectives, is as follows:

**Meeting Net Revenue Requirements:** For FY 2024/25 through FY 2028/29, the projected net revenue requirement (that is, total annual expenses plus debt service and rate-funded capital costs, less non-rate revenues) for the water system averages \$2.2 million annually. If no rate adjustments are implemented, the District is projected to run an annual deficit of approximately \$500 thousand annually.

**Maintaining Reserve Funds:** Reserve funds provide a basis for a utility to cope with fiscal emergencies, such as revenue shortfalls, asset failure, and natural disasters, among other events. Reserve policies provide guidelines for sound financial management, with an overall long-range perspective to maintain financial solvency and mitigate financial risks associated with revenue instability, volatile capital costs, and unexpected emergencies.

- The District’s existing reserves are significantly below target levels, and the challenge is to meet future revenue requirements and still maintain adequate reserves. NBS together with District staff have chosen to set the following reserve targets:
  - **Operating Reserve** equal to 6 months of operating and maintenance expenses, or approximately \$1.1 million in FY 2024/25. An operating reserve is intended to promote financial viability in the event of any short-term fluctuation in revenues and/or expenditures, such as those caused by weather patterns, the natural inflow and outflow of cash during billing cycles, natural variability in demand-based revenue streams (e.g., volumetric charges), and – particularly in periods of economic distress – changes or trends in the age of receivables. NBS considers a 6-month operating reserve to be an appropriate reserve fund target (i.e., most water utilities use a 3-to-6-month target for the operating reserve).
  - **Capital Rehabilitation & Replacement Reserve** equal to 100% of the average capital improvement costs over the 5-year rate adoption period; the five-year average is approximately \$467 thousand. This reserve is intended to be a cash resource set aside to address long-term capital system replacement and rehabilitation needs.

**Funding Capital Improvement Projects:** The District must fund necessary capital improvements to maintain current service levels. District staff has identified roughly \$6.7 million in expected capital expenditures over the next five years (FY 2024/25 through FY 2028/29), most of which need to be accomplished in the first two years of the rate period. This rate study assumes the District will utilize a State Revolving Fund loan of just over \$1 million in 2025 to finance capital projects. Proceeds from the loan along with the recommended rate increases, enable the District to fund these capital expenditures while maintaining operating reserves and minimizing impacts to capital reserves.

**Inflation and Growth Projections:** Cost inflation and growth assumptions are necessary to project future revenues and expenses for the study period. Customer growth is expected to remain flat year over year. This assumption was used in the analysis for rate revenues while inflation factors, including the Consumer Price Index,<sup>5</sup> were used in projecting expenses.

**Maintaining Adequate Bond Coverage:** The water utility currently has an outstanding loan with approximately \$276 thousand in principal remaining. The final loan payment is scheduled to occur in Fiscal Year 2026/27. This analysis also assumes that the District will obtain a State Revolving Fund Loan in an

---

<sup>5</sup> Consumer Price Index for all urban consumers in the San Francisco area. Source: Website: <https://www.bls.gov/cpi/>.

approximate amount of \$1 million with loan payments beginning in Fiscal Year 2025/26. The rate covenants of the existing loan includes a minimum debt service coverage ratio of 1.25. The SRF loan includes a minimum debt service coverage ratio of 1.2. The benefit of maintaining a higher coverage ratio is that it strengthens the District’s credit rating which can help lower interest rates for debt-funded capital projects and, in turn, reduce annual debt service payments.

**Figure 2** summarizes the sources and uses of funds, net revenue requirements, and the annual percent adjustments in total rate revenue recommended for the next five years.

**Figure 2. Summary of Water Revenue Requirements**

Summary of Sources and Uses of Funds and Net Revenue Requirements	5-Year Projected Rate Period				
	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<b>Sources of Water Funds</b>					
Rate Revenue Under Prevailing Rates	\$ 1,668,190	\$ 1,668,218	\$ 1,668,247	\$ 1,668,277	\$ 1,668,308
Non-Rate Revenues	336,847	339,615	342,479	345,441	348,506
Interest Earnings	6,803	-	-	-	-
<b>Total Sources of Funds</b>	<b>\$ 2,011,840</b>	<b>\$ 2,007,833</b>	<b>\$ 2,010,726</b>	<b>\$ 2,013,718</b>	<b>\$ 2,016,814</b>
<b>Uses of Water Funds</b>					
Operating Expenses	\$ 2,247,728	\$ 2,129,886	\$ 2,234,918	\$ 2,340,172	\$ 2,441,486
Debt Service	119,006	189,966	130,463	70,960	70,960
Rate-Funded Capital Expenses	103,000	249,435	298,872	151,894	131,965
<b>Total Use of Funds</b>	<b>\$ 2,469,734</b>	<b>\$ 2,569,287</b>	<b>\$ 2,664,252</b>	<b>\$ 2,563,026</b>	<b>\$ 2,644,411</b>
<b>Surplus (Deficiency) before Rate Increase</b>	<b>\$ (457,894)</b>	<b>\$ (561,454)</b>	<b>\$ (653,527)</b>	<b>\$ (549,307)</b>	<b>\$ (627,597)</b>
Additional Revenue from Rate Increases <sup>1</sup>	145,967	583,866	764,035	958,620	1,168,775
<b>Surplus (Deficiency) after Rate Increase</b>	<b>\$ (311,928)</b>	<b>\$ 22,412</b>	<b>\$ 110,509</b>	<b>\$ 409,313</b>	<b>\$ 541,178</b>
<b>Projected Increase to Rate Revenue Overall</b>	<b>35.00%</b>	<b>0.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>
<i>Cumulative Increases</i>	35.00%	35.00%	45.80%	57.46%	70.06%
<b>Net Revenue Requirement</b>	<b>\$ 2,125,267</b>	<b>\$ 2,228,827</b>	<b>\$ 2,320,899</b>	<b>\$ 2,216,680</b>	<b>\$ 2,294,969</b>

1. Assumes new rates are implemented April 1, 2025.

For each year thereafter, the assumption is that new rates will be implemented on July 1st of each year.

**Figure 3** summarizes the projected reserve fund balances and reserve targets for the District’s unrestricted funds. A detailed version of the proposed 5-year financial plan is included in *Appendix A*. The tables in the appendix include the revenue requirement, reserve funds, revenue sources, capital improvement costs, and the proposed rate adjustments needed to meet the District’s funding requirements.

**Figure 3. Summary of Primary Water Reserve Funds**

Beginning Reserve Fund Balances and Recommended Reserve Targets	5-Year Projected Rate Period				
	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<b>Operating Fund Contingency Fee Reserve</b>					
Ending Balance	\$ (81,928)	\$ (59,516)	\$ 50,993	\$ 460,306	\$ 1,001,484
<i>Recommended Minimum Target</i>	<i>1,124,000</i>	<i>1,065,000</i>	<i>1,117,000</i>	<i>1,170,000</i>	<i>1,221,000</i>
<b>Rate Stabilization Contingency Fund Reserve</b>					
Ending Balance	\$ -	\$ -	\$ -	\$ -	\$ -
<i>Recommended Minimum Target</i>	<i>416,843</i>	<i>416,843</i>	<i>416,843</i>	<i>416,843</i>	<i>416,843</i>
<b>Capital Facility Replacement Reserve</b>					
Ending Balance	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000
<i>Recommended Minimum Target</i>	<i>466,792</i>	<i>466,792</i>	<i>466,792</i>	<i>466,792</i>	<i>466,792</i>
<b>Total Ending Balance</b>	<b>\$ 103,072</b>	<b>\$ 125,484</b>	<b>\$ 235,993</b>	<b>\$ 645,306</b>	<b>\$ 1,186,484</b>
<i>Total Recommended Minimum Target</i>	<i>\$ 1,540,843</i>	<i>\$ 1,481,843</i>	<i>\$ 1,533,843</i>	<i>\$ 1,586,843</i>	<i>\$ 1,637,843</i>

### 2.3 Cost-of-Service Analysis

Once the net revenue requirements are determined, the cost-of-service analysis (COSA) proportionately distributes the revenue requirements to each of the customer classes. The COSA consists of two major

components: (1) the classification of expenses, and (2) the allocation of costs to each customer class. Costs are classified according to the function they serve. All costs in the District’s budget are allocated to each component of the rate structure in proportion to the level of service required by customers.

The level of service is related to the volume and strength of the water treated, infrastructure capacity, and customer service. These costs are based on allocation factors, such as water consumption, number of meters, and customer class. Ultimately, a COSA is intended to result in rates that are proportional to the cost of providing service to each customer class.

## FUNCTIONALIZATION AND CLASSIFICATION OF COSTS

Most costs are not typically allocated just to fixed or variable categories but rather allocated to multiple functions of water service. The functionalization and classification process provides the basis for allocating costs to various customer classes based on the cost causation (classification) components described below:

- **Commodity-related costs** are costs associated with the change in the volume of water produced and delivered. These commonly include the costs of water quality testing, energy related to pumping for transmission and distribution, and source of supply.
- **Capacity-related costs** are costs associated with sizing facilities to meet the maximum, or peak, demand. This includes both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events.
- **Customer-related costs** are costs associated with having a customer connected to the water system, such as meter reading, postage, billing, and other administrative duties.

The District’s budgeted costs were reviewed and allocated to these cost causation components which are used as the basis for establishing new water rates and translated into fixed and variable charges. Tables in the *Appendices* show how the District’s expenses were classified and allocated to these cost causation components. In the analysis, these cost causation components are also considered to be either fixed or variable.

## FIXED AND VARIABLE COSTS

Ideally, utilities should recover all of their fixed costs from fixed charges and all of their variable costs from volumetric charges. When this is the case, fluctuations in water sales revenues would be directly offset by reductions or increases in variable expenses, which provides greater revenue stability for the utility. However, other factors are often considered when designing water rates, such as community values, water conservation goals, ease of understanding, and ease of administration.<sup>6</sup>

NBS functionalized the District’s costs into categories that represent fixed and variable costs. This analysis resulted in a cost distribution that is approximately 68% fixed and 32% variable (i.e., volumetric). The District’s current rates collect revenue from customers in proportions of approximately 70% fixed and 30% variable. NBS also evaluated an 80% fixed/20% variable rate structure and compares the results below.

**Figure 4** summarizes how costs are allocated to each cost component and used to establish new water rates. **Figure 5** shows the resulting cost allocation to each cost classification component.

---

<sup>6</sup> *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7<sup>th</sup> Edition, 2017, pp. 6 and 96.

**Figure 4. Allocation Percentages of Revenue Requirements**

Classification Components	Cost-of-Service Net Revenue Requirements (FY 2024/25)	
Capacity-Related Costs	\$ 1,423,127	63.2%
Customer-Related Costs	108,353	4.8%
Fire Protection Costs	3,561	0.2%
Commodity-Related Costs	717,016	31.8%
<b>Net Revenue Requirement</b>	<b>\$ 2,252,056</b>	<b>100.0%</b>

**Figure 5. Allocated Net Revenue Requirements**

Customer Classes	Classification Components				Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Fixed			Variable		
	Hydraulic Capacity Related Costs	Customer Related Costs	Fire Protection Costs	Volumetric Related Costs		
<b>Residential</b>						
5/8 inch	\$ 1,335,883	\$ 106,808	\$ -	\$ 693,937	\$ 2,136,628	94.9%
1 inch	7,026	211	-	1,847	9,084	0.4%
2 inch	11,711	140	-	1,436	13,287	0.6%
<b>Commercial</b>						
5/8 inch	5,270	421	-	3,189	8,880	0.4%
1 inch	7,026	211	-	2,741	9,978	0.4%
1.5 inch	2,928	70	-	-	2,998	0.1%
2 inch	29,276	351	-	12,732	42,359	1.9%
3 inch	9,368	70	-	1,134	10,572	0.5%
4 inch	14,638	70	-	-	14,708	0.7%
<b>Fire</b>						
6 inch	-	-	3,561	-	3,561	0.2%
<b>Total Net Revenue Requirement</b>	<b>\$ 1,423,127</b>	<b>\$ 108,353</b>	<b>\$ 3,561</b>	<b>\$ 717,016</b>	<b>\$ 2,252,056</b>	<b>100%</b>

## 2.4 Characteristics of Water Customers by Customer Class

Customer classes are typically determined by grouping customers with similar demand characteristics into categories that reflect the cost differentials to serve each type of customer. Customer classes are most often identified as single-family, multi-family, commercial, landscape, etc., and the District follows this common methodology. The rates proposed in this report follow a similar structure where the fixed charges within each customer class vary by meter size while all customers are charged a uniform volumetric rate based on water use.

The amount of consumption, the peaking factors, and the number of meters by size are used to allocate costs to customer classes and determine the appropriate rate structures for each. These components of the COSA are presented in the following figures.

Commodity-related costs are costs associated with the total annual consumption of water by customer class. **Figure 6** below summarizes the most recent consumption data by customer class and represents the expected percent of consumption over the 5-year rate period.

**Figure 6. Water Consumption by Customer Class**

Customer Class	Consumption (HCF) FY 2022/23	FY 2022/23 Percent of Total Volume
<b>Residential</b>		
5/8 inch	153,650	<b>96.8%</b>
1 inch	409	<b>0.3%</b>
2 inch	318	<b>0.2%</b>
<b>Commercial</b>		
5/8 inch	706	<b>0.4%</b>
1 inch	607	<b>0.4%</b>
1.5 inch	0	<b>0.0%</b>
2 inch	2,819	<b>1.8%</b>
3 inch	251	<b>0.2%</b>
4 inch	0	<b>0.0%</b>
<b>Fire</b>		
6 inch	0	<b>0.0%</b>
<b>Total</b>	<b>158,760</b>	<b>100.0%</b>

Figure 7 shows the capacity allocation factor for each customer class.

**Figure 7. Capacity Allocation Factors by Customer Class**

Customer Class	Number of Meters/Accounts	Equivalency to 5/8 inch	Total Equivalent Meters	Percent of Total Capacity
<b>Residential</b>				
5/8 inch	1,521	1.00	1,521	<b>93.9%</b>
1 inch	3	2.67	8	<b>0.5%</b>
2 inch	2	6.67	13	<b>0.8%</b>
<b>Commercial</b>			0	
5/8 inch	6	1.00	6	<b>0.4%</b>
1 inch	3	2.67	8	<b>0.5%</b>
1.5 inch	1	3.33	3	<b>0.2%</b>
2 inch	5	6.67	33	<b>2.1%</b>
3 inch	1	10.67	11	<b>0.7%</b>
4 inch	1	16.67	17	<b>1.0%</b>
<b>Fire</b>				
6 inch <sup>2</sup>	0	33.33	0	<b>0.0%</b>
<b>Total</b>	<b>1,543</b>		<b>1,620</b>	<b>100%</b>

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx
2. Fire hydrant costs are excluded from capacity allocation.

Both operating costs and capital infrastructure costs incurred to accommodate system capacity events are generally allocated to each meter size according to its hydraulic capacity equivalency to the base 5/8" meter size. These hydraulic capacity factors are used to allocate the capacity-related costs to each customer class and are described in more detail later in this study.

Figure 8 shows the number of meters for each customer class. The percentage of total customers by customer class is then used to develop the customer allocation factors to allocate customer costs. Customer

costs are those costs associated with having customers connected to the water system and include costs related to meter reading, postage, and billing.

**Figure 8. Number of Meters by Customer Class**

Customer Class	Number of Meters/Accounts	Percent of Total
<b>Residential</b>		
5/8 inch	1,521	<b>98.6%</b>
1 inch	3	<b>0.2%</b>
2 inch	2	<b>0.1%</b>
<b>Commercial</b>		
5/8 inch	6	<b>0.4%</b>
1 inch	3	<b>0.2%</b>
1.5 inch	1	<b>0.1%</b>
2 inch	5	<b>0.3%</b>
3 inch	1	<b>0.1%</b>
4 inch	1	<b>0.1%</b>
<b>Fire</b>		
6 inch <sup>2</sup>	2	<b>0.0%</b>
<b>Total</b>	<b>1,543</b>	<b>100.0%</b>

1. Source for total meters and consumption: *2023 Business Water Sales\_NBS.xlsx* & *Water Sales 2021-22-23\_NBS.xlsx*

2. Fire hydrant costs are excluded from customer allocation.

## 2.5 Rate Design Analysis

Evaluating the water rate structure includes reviewing rate-design objectives and policies, including continuity of rate design, revenue stability, equity among customers, and water conservation. NBS discussed the 70%/30% and 80%/20% (preferred) rate designs with District staff over the course of this study. The following section describe how the proposed water rates were determined.

### DEVELOPMENT OF PROPOSED RATES

#### **Fixed Service Charges**

The fixed meter charge recognizes that the water utility incurs fixed costs regardless of whether customers use water. Two components comprise the fixed meter charge: (1) the capacity component, and (2) the customer component. The capacity component recovers costs associated with sizing the water system to ensure there is sufficient capacity in the system to meet peak demand. The customer component includes those costs related to reading and maintaining meters, customer billing and collection, and other customer service-related costs.

Fixed charges also vary based on meter sizes because larger meters have higher hydraulic capacity requirements and reflect their potential to use more of the system’s capacity.<sup>7</sup> The potential capacity demand is proportional to the maximum hydraulic flow through each meter size based on the hydraulic

<sup>7</sup> System capacity is the system’s ability to supply water to all delivery points at the time when demanded.



capacity ratios established by AWWA.<sup>8</sup> The AWWA capacity ratios used for this report are shown in **Figure 9**.

**Figure 9. Hydraulic Capacity Factors**

Meter Size	Standard Meters	
	Meter Capacity (GPM) <sup>1</sup>	Equivalency to 5/8 inch
	<i>Displacement Meters</i>	
5/8 inch	15	1.00
3/4 inch	25	1.67
1 inch	40	2.67
1 1/2 inch	50	3.33
2 inch	100	6.67
	<i>Compound Class I Meters</i>	
3 inch	160	10.67
4 inch	250	16.67
6 inch	500	33.33

1. Per AWWA, M1 Manual, Table B-1.

The actual number of meters by size is multiplied by the corresponding capacity ratios to calculate “equivalent” meters. The number of equivalent meters is used as a proxy for the potential demand that each customer can place on the water system. **Figure 10** summarizes the number of meters, the hydraulic capacity factors, and the number of equivalent meters (i.e., the number of meters multiplied by the hydraulic capacity factor) by customer class and meter size.

**Figure 10. Equivalent Meters**

Customer Class	Number of Meters/Accounts	Equivalency to 5/8 inch	Total Equivalent Meters	Percent of Total Capacity
<b>Residential</b>				
5/8 inch	1,521	1.00	1,521	93.9%
1 inch	3	2.67	8	0.5%
2 inch	2	6.67	13	0.8%
<b>Commercial</b>			0	
5/8 inch	6	1.00	6	0.4%
1 inch	3	2.67	8	0.5%
1.5 inch	1	3.33	3	0.2%
2 inch	5	6.67	33	2.1%
3 inch	1	10.67	11	0.7%
4 inch	1	16.67	17	1.0%
<b>Fire</b>				
6 inch <sup>2</sup>	0	33.33	0	0.0%
<b>Total</b>	<b>1,543</b>		<b>1,620</b>	<b>100%</b>

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

2. Fire hydrant costs are excluded from capacity allocation.

Using the costs allocated to each customer class from Figure 5, **Figure 11** shows the calculation of the fixed monthly service charges for all customer classes based on meter size for Alternative 2. As previously mentioned, the customer service charge is calculated by dividing the customer service-related costs by the

<sup>8</sup> Principles of Water Rates, Fees and Charges, Manual of Water Supply Practices, Manual M1, AWWA, 7<sup>th</sup> Edition, 2017, p. 386. Water Meters – Selection, Installation, Testing and Maintenance, Manual M6, AWWA, 5<sup>th</sup> Edition, 2012, pp. 63-65.



total number of meters, whereas the fixed capacity charge is calculated by dividing the capacity-related costs by the total number of equivalent meters for each meter size.

**Figure 11. Calculation of Fixed Service Charges**

Number of Meters by Class and Size <sup>1</sup>	FY 2024/25							Total
	5/8" Meter	1" meter	1.5" meter	2" meter	3" meter	4" meter	6" meter	
Residential	1,521	3	0	2	0	0	0	1,526
Commercial	6	3	1	5	1	1	0	17
<b>Total Meters/Accounts</b>	<b>1,527</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1,543</b>
Hydraulic Capacity Factor <sup>2</sup>	1.00	2.67	3.33	6.67	10.67	16.67	33.33	
<b>Total Equivalent Meters</b>	<b>1,527</b>	<b>16</b>	<b>3</b>	<b>47</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>1,620</b>
<b>Monthly Fixed Service Charges</b>								
Customer Costs (\$/Acct/month) <sup>3</sup>	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	
Residential Capacity Costs (\$/Acct/month)	\$86.94	\$231.84	\$289.80	\$579.59	\$927.35	\$1,448.98	\$2,897.97	
<b>Total Monthly Meter Charge</b>	<b>\$92.79</b>	<b>\$237.69</b>	<b>\$295.65</b>	<b>\$585.45</b>	<b>\$933.20</b>	<b>\$1,454.84</b>	<b>\$2,903.82</b>	
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>								
Customer Costs	\$ 108,353							
Capacity Costs	1,690,444							
<b>Total Fixed Meter Costs</b>	<b>\$ 1,798,796</b>							
<b>Annual Revenue from Monthly Meter Charges</b>								
Customer Charges	\$ 107,229	\$ 421	\$ 70	\$ 492	\$ 70	\$ 70	\$ -	\$ 108,353
Capacity Charges	\$ 1,593,072	\$ 16,692	\$ 3,478	\$ 48,686	\$ 11,128	\$ 17,388	\$ -	\$ 1,690,444
<b>Total Revenue from Monthly Meter Charge</b>	<b>\$ 1,700,301</b>	<b>\$ 17,114</b>	<b>\$ 3,548</b>	<b>\$ 49,177</b>	<b>\$ 11,198</b>	<b>\$ 17,458</b>	<b>\$ -</b>	<b>\$ 1,798,796</b>

1. Meter by Class and Size are based on June 2023 customer billing data.
2. Source: *Principles of Water Rates, Fees, and Charges*, Manual M1, AWWA, Table B-1.
3. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
4. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

### Volumetric Rates

Figure 12 shows the calculation of the uniform rate per unit of water for all customers for Alternative 2.

**Figure 12. Uniform Commodity Rates for FY 2024/25**

Customer Classes	Water Consumption (HCF/yr)	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/HCF)	Proposed Rate Structure
<b>Residential</b>					
5/8 inch	153,650	\$ 427,326	18.97%	\$2.83	Uniform
1 inch	409	1,817	0.08%	\$2.83	Uniform
2 inch	318	2,657	0.12%	\$2.83	Uniform
<b>Commercial</b>					
5/8 inch	706	1,776	0.08%	\$2.83	Uniform
1 inch	607	1,996	0.09%	\$2.83	Uniform
1.5 inch	-	600	0.03%	\$2.83	Uniform
2 inch	2,819	8,472	0.38%	\$2.83	Uniform
3 inch	251	2,114	0.09%	\$2.83	Uniform
4 inch	-	2,942	0.13%	\$2.83	Uniform
<b>Fire</b>					
6 inch	-	-	0.00%	\$2.83	Uniform
<b>Total Net Revenue Requirement</b>	<b>158,760</b>	<b>\$ 449,699</b>	<b>20%</b>		

## 2.6 Proposed Water Rates

Since District’s previous rate study was completed, the underlying cost factors (e.g., consumption by class, number of meters, capacity allocation factors) have changed. The cost-of-service analysis by nature “re-balances” how costs are allocated between customer classes and, as a result, there are uneven adjustments in the first year of the 5-year rate adoption period. In contrast, in the subsequent four years of the rate planning period, proposed charges are simply adjusted by the proposed adjustment in total rate revenue needed to meet projected revenue requirements.

**Figure 13** provides a comparison of the current and proposed water rates for FY 2024/25 through 2028/29 for each customer class and meter size. Projected rates for each fiscal year<sup>9</sup> reflect adjustments based on the cost-of-service analysis, both the 70% fixed/30% variable rate design structure and the preferred 80% fixed/20% variable rate design structure, and the recommended percent increases in rate revenue planned for each year. More detailed tables on the development of the proposed water rates, along with rate alternatives, are documented in Appendix A.

**Figure 13. Current and Proposed Water Rates**

**Alternative 1: 70% Fixed / 30% Volumetric**

Water Rate Schedule		Current Rates	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Overall Increase in Rate Revenue</i>			35.00%	0.00%	8.00%	8.00%	8.00%
<b>Monthly Fixed Service Charges</b>							
<i>Residential</i>							
	5/8 inch	\$61.91	\$81.23	\$81.22	\$87.71	\$94.72	\$102.29
	1 inch	\$155.50	\$206.85	\$206.85	\$223.39	\$241.26	\$260.56
	2 inch	\$380.13	\$508.35	\$508.35	\$549.01	\$592.93	\$640.36
<i>Commercial</i>							
	5/8 inch	\$61.91	\$81.23	\$81.22	\$87.71	\$94.72	\$102.29
	1 inch	\$155.50	\$206.85	\$206.85	\$223.39	\$241.26	\$260.56
	1.5 inch	\$192.94	\$257.10	\$257.10	\$277.66	\$299.87	\$323.85
	2 inch	\$380.13	\$508.35	\$508.35	\$549.01	\$592.93	\$640.36
	3 inch	\$604.77	\$809.85	\$809.85	\$874.63	\$944.60	\$1,020.16
<i>Fire</i>							
	4 inch	\$941.72	\$1,262.10	\$1,262.10	\$1,363.06	\$1,472.10	\$1,589.86
	6 inch	\$123.74	\$148.36	\$148.35	\$160.21	\$173.02	\$186.86
<b>Commodity Charges</b>							
All Customers (\$/hcf)		\$2.76	\$4.25	\$4.24	\$4.57	\$4.93	\$5.32

**Alternative 2: 80% Fixed / 20% Volumetric**

Water Rate Schedule		Current	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Overall Increase in Rate Revenue</i>			35.00%	0.00%	8.00%	8.00%	8.00%
<b>Monthly Fixed Service Charges</b>							
<i>Residential</i>							
	5/8 inch	\$61.91	\$92.79	\$92.79	\$100.21	\$108.22	\$116.87
	1 inch	\$155.50	\$237.69	\$237.68	\$256.69	\$277.22	\$299.39
	2 inch	\$380.13	\$585.45	\$585.44	\$632.27	\$682.85	\$737.47
<i>Commercial</i>							
	5/8 inch	\$61.91	\$92.79	\$92.79	\$100.21	\$108.22	\$116.87
	1 inch	\$155.50	\$237.69	\$237.68	\$256.69	\$277.22	\$299.39
	1.5 inch	\$192.94	\$295.65	\$295.64	\$319.29	\$344.83	\$372.41
	2 inch	\$380.13	\$585.45	\$585.44	\$632.27	\$682.85	\$737.47
	3 inch	\$604.77	\$933.20	\$933.20	\$1,007.85	\$1,088.47	\$1,175.54
	4 inch	\$941.72	\$1,454.84	\$1,454.83	\$1,571.21	\$1,696.90	\$1,832.65
<i>Fire</i>							
	6 inch	\$123.74	\$148.36	\$148.35	\$160.21	\$173.02	\$186.86
<b>Commodity Charges</b>							
All Customers (\$/hcf)		\$2.76	\$2.83	\$2.83	\$3.05	\$3.29	\$3.55

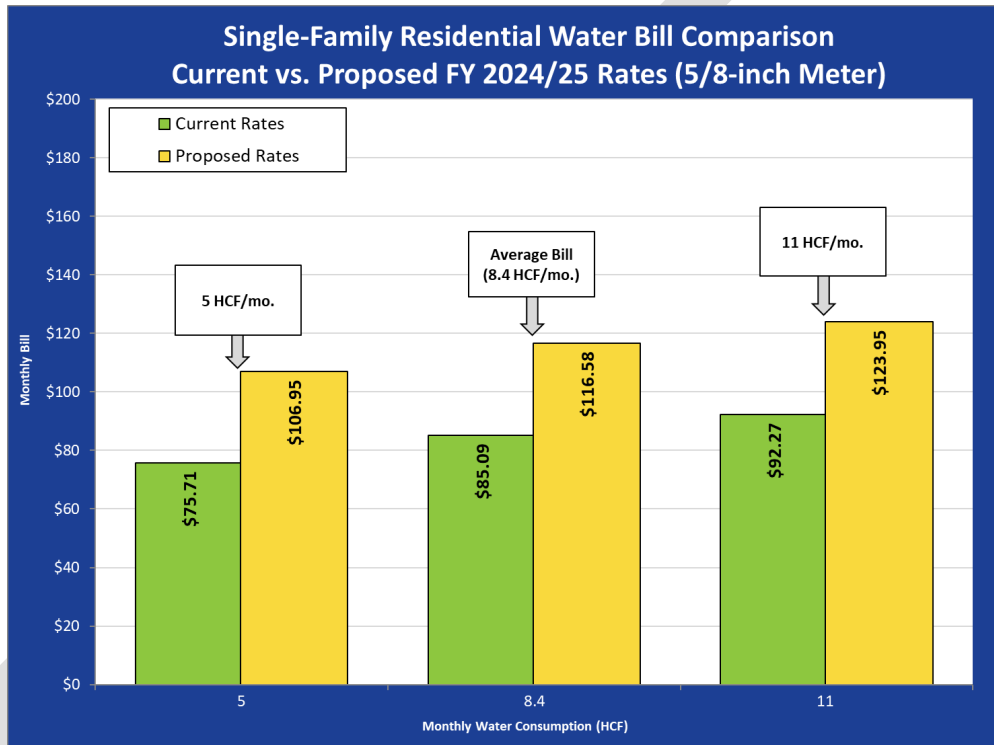
<sup>9</sup> First rate adjustments are scheduled to be effective on April 1, 2025.

## 2.7 Comparison of Current and Proposed Water Bills

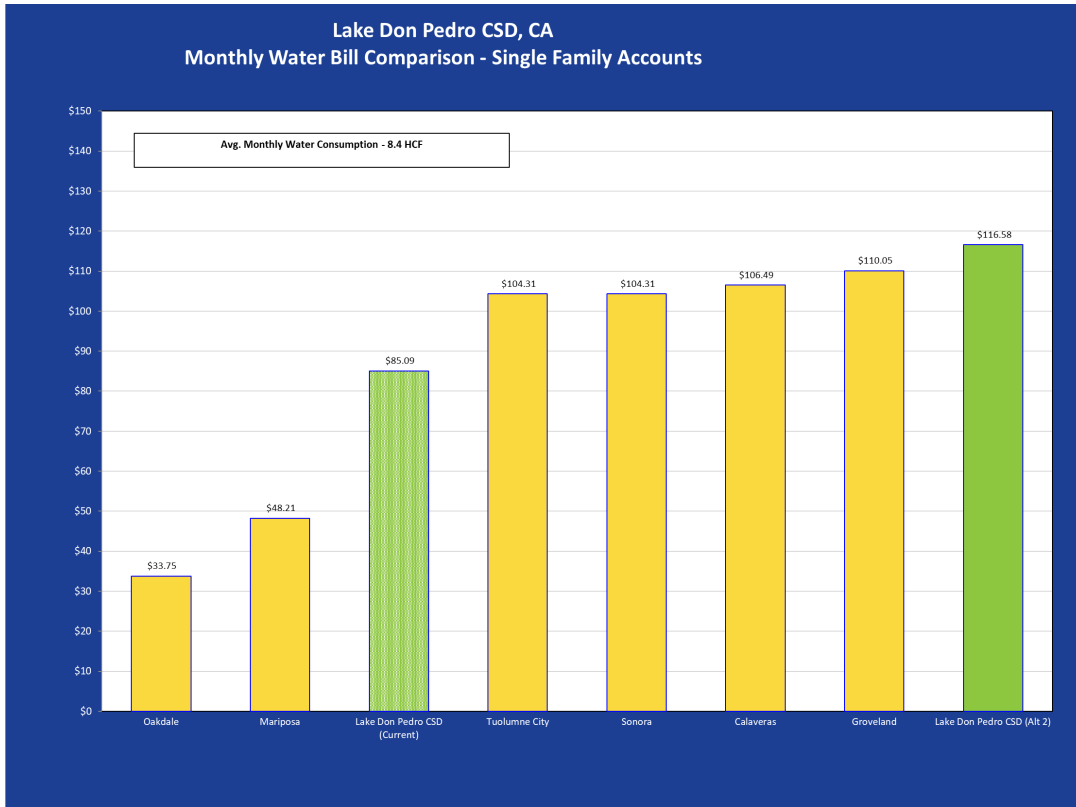
Figure 14 shows a range of monthly water bills under the current and proposed water rates for residential Single-Family customers under recommended Alternative 2. These monthly bills are based on typical meter sizes and highlight the average consumption levels for each customer.

Figure 15 presents a comparison of residential water rates for similar communities.

Figure 14. Monthly Water Bill Comparison for Residential Customers – Preferred Alternative 2



**Figure 15. Residential Bills Comparison for Similar Communities**



DRAFT

## 3. Recommendations and Next Steps

---

### 3.1 Consultant Recommendations

NBS recommends the District take the following actions:

- **Approve and Accept this Study:** NBS recommends the District Board formally approve and adopt this Study and its recommendations and proceed with the next steps outlined below to implement the proposed rates. This will provide documentation of the rate study analyses and the basis for analyzing potential changes to future rates.
- **Implement Recommended Levels of Rate Increases and Proposed Rates:** Based on successfully meeting the Prop 218 procedural requirements, the District should proceed with implementing the 5-year schedule of proposed rates and rate increases for preferred Alternative 2 previously shown in Figure 13. This will help ensure the continued financial health of District's utilities.

### 3.2 Next steps

**Annually Review Rates and Revenue** – Any time an agency adopts new utility rates or rate structures, those new rates should be closely monitored over the next several years to ensure the revenue generated is sufficient to meet the annual revenue requirements. Changing economic and water consumption patterns underscore the need for this review, as well as potential and unseen changing revenue requirements – particularly those related to environmental regulations that can significantly affect capital improvements and repair and replacement costs.

*Note: The attached Technical Appendices provide more detailed information on the analysis of the financial plan, revenue requirements, cost-of-service, and the rate design analyses that have been summarized in this report.*

### 3.3 NBS' Principal Assumptions and Considerations

In preparing this report and the opinions and recommendations included herein, NBS has relied on several principal assumptions and considerations regarding financial matters, conditions, and events that may occur in the future. This information and these assumptions, including the District's budgets, capital improvement costs, customer accounts and consumption, and information from District staff were provided by sources we believe to be reliable, although NBS has not independently verified this data.

While we believe NBS' use of such information and assumptions is reasonable for the purpose of this report and its recommendations, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others.

# Technical Appendices

---

These Appendices contain:

- Appendix A: Water Rate Study Tables and Figures

DRAFT

# Appendix A. Water Rate Study Tables and Figures

---

DRAFT

DRAFT



Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS

RATE REVENUE REQUIREMENTS SUMMARY	Actual	Actual	5-Year Projected Rate Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<b>Sources of Water Funds<sup>1</sup></b>							
Water Rate Revenue	\$ 1,507,844	\$ 1,610,988	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373
Hydrant Revenue	2,949	817	817	845	874	905	936
Charges for Service (other than Rate Revenue)	248,800	300,176	300,176	302,937	305,792	308,747	311,803
Investment Income	3,042	6,803	6,803	-	-	-	-
Other Revenues	53,868	36,671	36,671	36,679	36,687	36,695	36,703
<b>Total Sources of Funds:</b>	<b>\$ 1,816,503</b>	<b>\$ 1,955,455</b>	<b>\$ 2,011,840</b>	<b>\$ 2,007,833</b>	<b>\$ 2,010,726</b>	<b>\$ 2,013,718</b>	<b>\$ 2,016,814</b>
<b>Uses of Water Funds<sup>1</sup></b>							
<i>Operating Expenses:</i>							
Salaries And Benefits	\$ 902,650	\$ 939,898	\$ 1,137,024	\$ 1,170,003	\$ 1,203,978	\$ 1,238,979	\$ 1,275,037
PG&E Power	246,939	279,144	354,163	383,737	415,782	450,502	488,122
Water System	230,529	211,715	274,711	277,332	285,991	309,539	324,823
Other Expenses	330,420	276,137	481,831	298,815	329,167	341,152	353,504
Subtotal: Operating Expenses	\$ 1,710,538	\$ 1,706,894	\$ 2,247,728	\$ 2,129,886	\$ 2,234,918	\$ 2,340,172	\$ 2,441,486
<i>Other Expenditures:</i>							
Existing Debt Service	\$ 119,006	\$ 119,006	\$ 119,006	\$ 119,006	\$ 59,503	\$ -	\$ -
New Debt Service	-	-	-	70,960	70,960	70,960	70,960
Rate-Funded Capital Expenses	-	-	103,000	249,435	298,872	151,894	131,965
Subtotal: Other Expenditures	\$ 119,006	\$ 119,006	\$ 222,006	\$ 439,401	\$ 429,334	\$ 222,854	\$ 202,925
<b>Total Uses of Water Funds:</b>	<b>\$ 1,829,544</b>	<b>\$ 1,825,900</b>	<b>\$ 2,469,734</b>	<b>\$ 2,569,287</b>	<b>\$ 2,664,252</b>	<b>\$ 2,563,026</b>	<b>\$ 2,644,411</b>
<i>plus: Revenue from Rate Increases<sup>3</sup></i>	-	-	145,967	583,866	764,035	958,620	1,168,775
<b>Annual Surplus/(Deficit)</b>	<b>\$ (13,041)</b>	<b>\$ 129,555</b>	<b>\$ (311,928)</b>	<b>\$ 22,412</b>	<b>\$ 110,509</b>	<b>\$ 409,313</b>	<b>\$ 541,178</b>
<b>Net Revenue Req't. (Total Uses less Non-Rate Revenue)</b>	<b>\$ 1,520,885</b>	<b>\$ 1,481,433</b>	<b>\$ 2,125,267</b>	<b>\$ 2,228,827</b>	<b>\$ 2,320,899</b>	<b>\$ 2,216,680</b>	<b>\$ 2,294,969</b>
<b>Total Rate Revenue After Rate Increases (Water)</b>	<b>\$ 1,507,844</b>	<b>\$ 1,610,988</b>	<b>\$ 2,251,239</b>	<b>\$ 2,251,239</b>	<b>\$ 2,431,408</b>	<b>\$ 2,625,993</b>	<b>\$ 2,836,147</b>

<b>Projected Annual Rate Revenue Increase</b>	<b>0.00%</b>	<b>0.00%</b>	<b>35.00%</b>	<b>0.00%</b>	<b>8.00%</b>	<b>8.00%</b>	<b>8.00%</b>
<i>Cumulative Increase from Annual Revenue Increases</i>	<i>0.00%</i>	<i>0.00%</i>	<i>35.00%</i>	<i>35.00%</i>	<i>45.80%</i>	<i>57.46%</i>	<i>70.06%</i>
<i>Debt Coverage After Rate Increase</i>	<i>N/A</i>	<i>N/A</i>	<i>(0.76)</i>	<i>2.43</i>	<i>4.14</i>	<i>8.91</i>	<i>10.49</i>

1. Revenue and expenses for FY 2022/23 through FY 2024/25 provided by the District. Revenues and expenses for all other years are escalated based on the forecasting assumptions

in Table 8. Source files: Lake Don Pedro FY22-23 Actuals.pdf & Lake Don Pedro - FY 2025 Approved Budget.pdf

2. Interest earnings for FY 2022/23 through FY 2024/25 are from the City's Budget. For all other years, interest is calculated based on historical LAIF returns.

Source Files: Lake Don Pedro FY22-23 Actuals.pdf & Lake Don Pedro FY23-24

3. Revenue from rate increases assumes an implementation date of January 1, 2025 for new rates.

For each year thereafter, the assumption is that new rates will be implemented on July 1st of each year.

1	<-- Select Financial Plan Scenario Here	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
1	Alternative 1 - Minimum Required Increase	0.00%	0.00%	35.00%	0.00%	8.00%	8.00%	8.00%
2	Alternative 2 - Accelerated Increase	0.00%	0.00%	25.00%	0.00%	8.00%	8.00%	8.00%
3	Alternative 3 - Reserve Targets Achieved by End FY 29	0.00%	0.00%	25.00%	10.00%	10.00%	7.00%	5.00%
4	Alternative 4 - No Rate Increases	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

WATER RATE STUDY

Financial Plan and Reserve Projections

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 2 : RESERVE FUND SUMMARY

SUMMARY OF CASH ACTIVITY <sup>1</sup>	Actual	Actual	5-Year Projected Rate Period				
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<b>Unrestricted Reserve:</b>							
<b>Total Beginning Cash</b>	\$ -	\$ -	\$ 415,000				
<b>Operating Fund Contingency Fee Reserve</b>							
Beginning Reserve Balance	\$ -	\$ -	\$ 230,000	\$ (81,928)	\$ (59,516)	\$ 50,993	\$ 460,306
Plus: Net Cash Flow (After Rate Increases)	-	-	(311,928)	22,412	110,509	409,313	541,178
Less: Transfer out to Rate Stabilization Contingency Reserve	-	-	-	-	-	-	-
<b>Ending Operating Fund Contingency Fee Reserve Balance</b>	\$ -	\$ -	\$ (81,928)	\$ (59,516)	\$ 50,993	\$ 460,306	\$ 1,001,484
<b>Target Ending Balance (6 Months of O&amp;M)<sup>2</sup></b>	\$ 855,000	\$ 853,000	\$ 1,124,000	\$ 1,065,000	\$ 1,117,000	\$ 1,170,000	\$ 1,221,000
<b>Rate Stabilization Contingency Fund Reserve</b>							
Beginning Reserve Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Plus: Transfer of Operating Reserve Surplus	-	-	-	-	-	-	-
Less: Use of Reserve/Transfer to Capital Reserve	-	-	-	-	-	-	-
<b>Ending Rate Stabilization Contingency Fund Reserve Balance</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Target Ending Balance<sup>3</sup></b>	\$ -	\$ 402,747	\$ 416,843	\$ 416,843	\$ 416,843	\$ 416,843	\$ 416,843
<b>Capital Facility Replacement Reserve</b>							
Beginning Reserve Balance	\$ -	\$ -	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000
Plus: Transfer of Contingency Reserve Surplus	-	-	-	-	-	-	-
Less: Use of Reserves for Capital Projects	-	-	-	-	-	-	-
<b>Ending Capital Facility Replacement Reserve Balance</b>	\$ -	\$ -	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000	\$ 185,000
<b>Target Ending Balance (100% CIP Funding)<sup>4</sup></b>	\$ 466,792	\$ 466,792	\$ 466,792	\$ 466,792	\$ 466,792	\$ 466,792	\$ 466,792
<b>Ending Balance</b>	\$ -	\$ -	\$ 103,072	\$ 125,484	\$ 235,993	\$ 645,306	\$ 1,186,484
<b>Minimum Target Ending Balance</b>	\$ 1,321,792	\$ 1,722,539	\$ 2,007,635	\$ 1,948,635	\$ 2,000,635	\$ 2,053,635	\$ 2,104,635
<b>Ending Surplus/(Deficit) Compared to Targets</b>	\$ (1,321,792)	\$ (1,722,539)	\$ (1,904,562)	\$ (1,823,150)	\$ (1,764,641)	\$ (1,408,328)	\$ (918,150)
<b>Annual Interest Earnings Rate</b>	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%	1.29%

1. Source File: Lake Don Pedro - Reserve Policy 07.18.16.pdf

2. The target ending balance is set equal to 6 months of O&M expenses.

3. The target ending balance is set by the board between 25% of one year's current operating revenue and 75% of next year's fund revenue.

4. The target ending balance is set average CIP from the 5 year rate period.

CHART 1

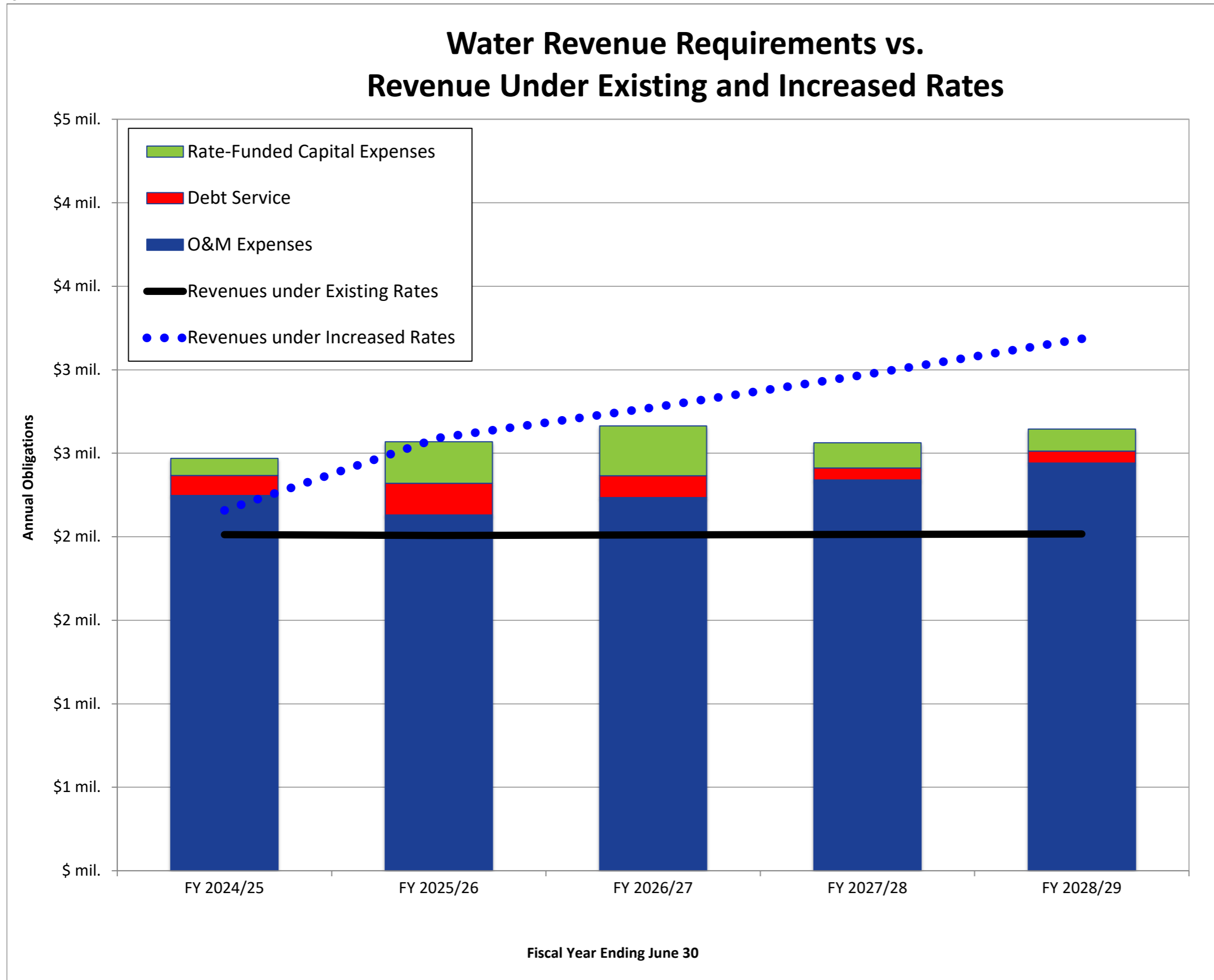


CHART 2

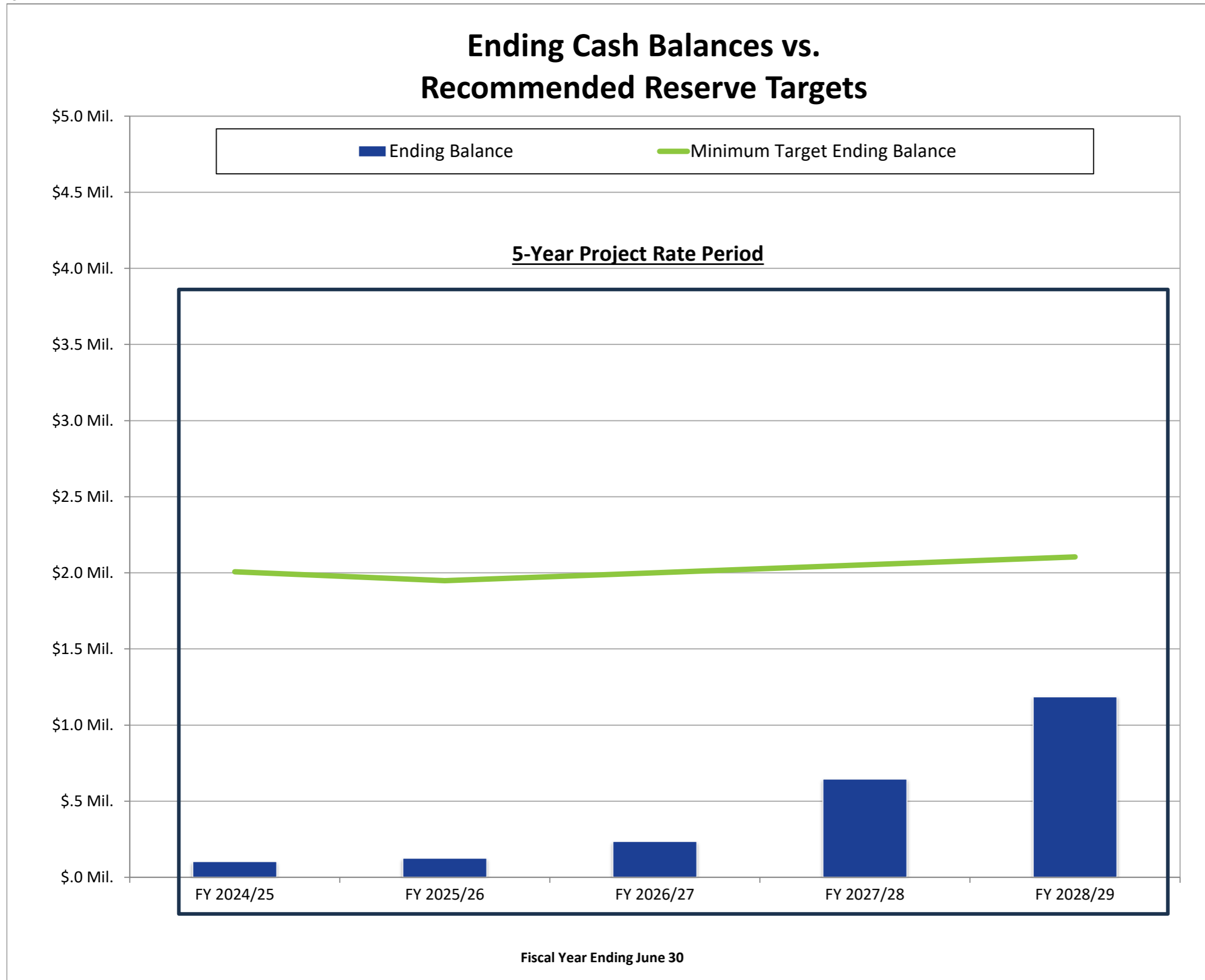
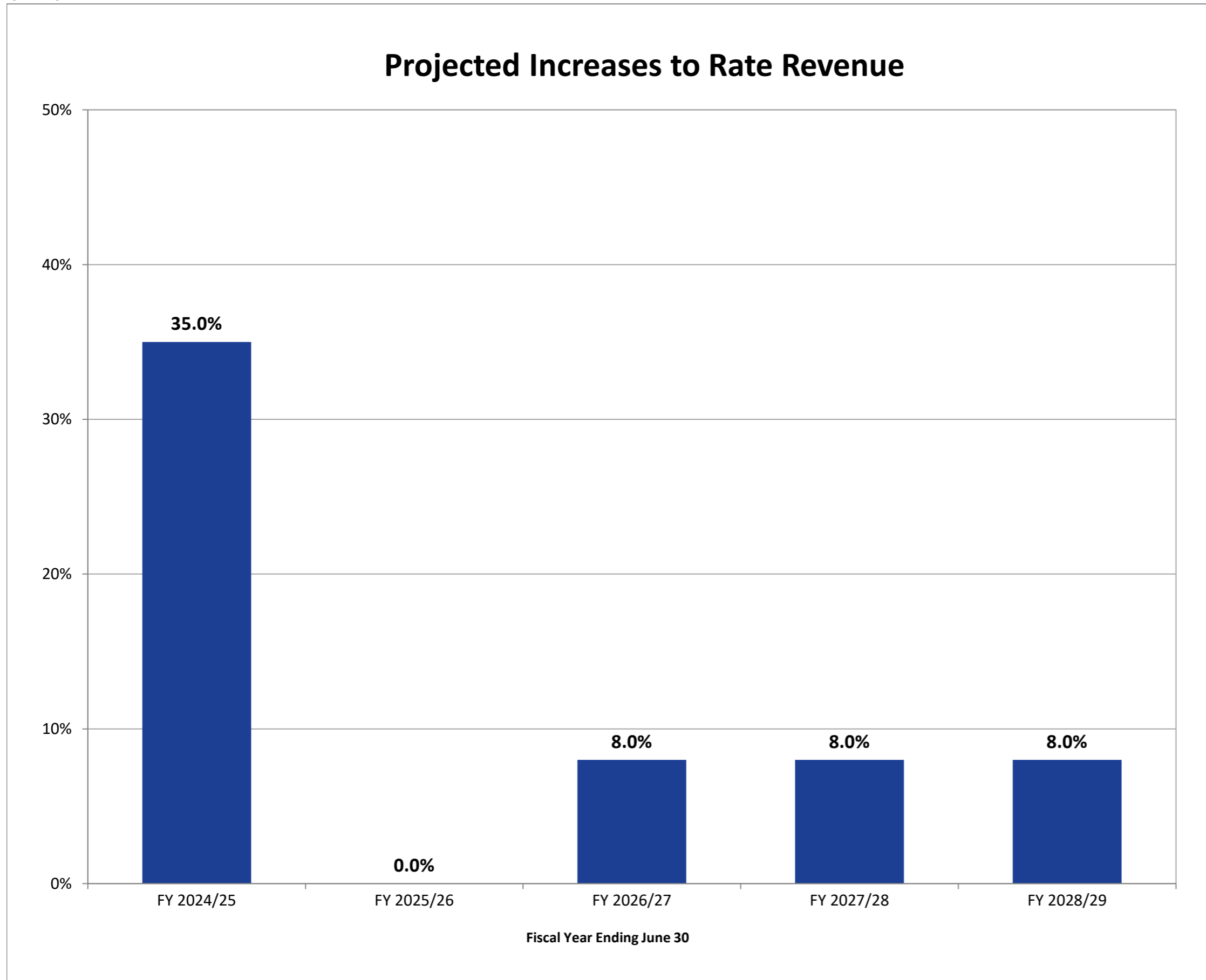


CHART 3



WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 3 : REVENUE FORECAST <sup>1</sup>

DESCRIPTION	Basis	Actual	Actual	5-Year Projected Rate Period					
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
<b>WATER RATE REVENUE</b>									
Water Sales Residential	1	\$ 431,224	\$ 455,990	\$ 471,950	\$ 471,950	\$ 471,950	\$ 471,950	\$ 471,950	\$ 471,950
Water Service Charges	1	1,076,620	1,154,998	1,195,423	1,195,423	1,195,423	1,195,423	1,195,423	1,195,423
<b>NON-RATE REVENUE</b>									
Hydrant Service Charge	2	692	47	47	49	50	52	54	56
Hydrant Rental	2	1,120	320	320	331	342	354	366	379
Hydrant Consumption	2	1,137	450	450	466	482	498	515	533
Meter Reconnection Fee	9	200	-	-	-	-	-	-	-
Water Availability Revenue	9	176,985	175,841	175,841	175,841	175,841	175,841	175,841	175,841
Int Inc Penalties - Customer	9	36,111	40,819	40,819	40,819	40,819	40,819	40,819	40,819
Meter Set Fee	9	5,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Avail Fee Income	2	1,804	1,748	1,748	1,808	1,871	1,935	2,002	2,071
Lease Fee	2	28,200	78,268	78,268	80,968	83,762	86,651	89,641	92,734
Donated Capital - Meters Curre	9	45,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Interest Income - LAIF	See FP	3,042	6,803	6,803	-	-	-	-	-
Transfer Fee Income	9	7,700	6,450	6,450	6,450	6,450	6,450	6,450	6,450
Other Income	2	1,168	221	221	229	237	245	253	262
<b>CAPACITY FEE REVENUE</b>									
Fee Revenue	1	-	-	-	-	-	-	-	-
<b>TOTAL: REVENUE</b>		<b>\$ 1,816,503</b>	<b>\$ 1,955,455</b>	<b>\$ 2,011,840</b>	<b>\$ 2,007,833</b>	<b>\$ 2,010,726</b>	<b>\$ 2,013,718</b>	<b>\$ 2,016,814</b>	<b>\$ 2,020,017</b>

TABLE 4 : REVENUE SUMMARY

DESCRIPTION	Basis	Actual	Actual	5-Year Projected Rate Period					
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
Water Rate Revenue		\$ 1,507,844	\$ 1,610,988	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373	\$ 1,667,373
Hydrant Revenue		2,949	817	817	845	874	905	936	968
Charges for Service (other than Rate Revenue)		248,800	300,176	300,176	302,937	305,792	308,747	311,803	314,965
Investment Income		3,042	6,803	6,803	-	-	-	-	-
Other Revenues		53,868	36,671	36,671	36,679	36,687	36,695	36,703	36,712
<b>TOTAL: REVENUE</b>		<b>\$ 1,816,503</b>	<b>\$ 1,955,455</b>	<b>\$ 2,011,840</b>	<b>\$ 2,007,833</b>	<b>\$ 2,010,726</b>	<b>\$ 2,013,718</b>	<b>\$ 2,016,814</b>	<b>\$ 2,020,017</b>
	Check	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 5 : OPERATING EXPENSE FORECAST, cont.<sup>1</sup>

DESCRIPTION	Basis	Actual	Actual	5-Year Projected Rate Period					
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
<b>SALARIES AND BENEFITS</b>									
Regular Pay - Plant	3	\$ 214,447	\$ 239,571	\$ 284,724	\$ 293,323	\$ 302,181	\$ 311,307	\$ 320,708	\$ 330,394
Overtime Pay	3	26,277	32,058	32,000	32,966	33,962	34,988	36,044	37,133
Sick Pay	3	9,215	10,677	12,836	13,224	13,623	14,034	14,458	14,895
Vacation Pay	3	11,638	14,173	16,088	16,574	17,074	17,590	18,121	18,668
Holiday Pay	3	7,377	16,069	20,453	21,071	21,708	22,363	23,038	23,734
PERS	3	24,485	26,532	27,656	28,492	29,352	30,238	31,152	32,092
FICA/Medicare	3	20,413	24,050	24,861	25,611	26,385	27,182	28,003	28,848
SUI	3	756	700	591	609	627	646	666	686
Health Insurance	3	50,777	62,645	65,662	67,645	69,688	71,793	73,961	76,195
Workers Compensation	3	9,391	8,897	11,767	12,123	12,489	12,866	13,254	13,655
Dental Insurance	3	3,784	3,663	4,162	4,288	4,417	4,551	4,688	4,830
Regular Pay - Administration	3	253,359	241,445	314,198	323,687	333,462	343,533	353,908	364,596
Overtime Pay	3	2,904	3,283	3,500	3,606	3,715	3,827	3,942	4,061
Sick Pay	3	11,830	7,695	11,702	12,056	12,420	12,795	13,181	13,579
Vacation Pay	3	10,019	14,829	11,021	11,354	11,697	12,050	12,414	12,789
Holiday Pay	3	5,379	6,822	5,917	6,096	6,280	6,469	6,665	6,866
PERS	3	23,946	20,965	23,232	23,934	24,657	25,401	26,169	26,959
FICA/Medicare	3	21,010	20,382	21,530	22,180	22,850	23,540	24,251	24,983
SUI	3	567	768	828	853	879	906	933	961
Health Insurance	3	49,190	26,102	24,912	25,664	26,439	27,238	28,060	28,908
Workers Compensation	3	667	651	684	705	726	748	770	794
Dental Insurance	3	3,823	2,838	3,972	4,092	4,215	4,343	4,474	4,609
Vision Care	3	100	-	200	206	212	219	225	232
Regular Pay	3	7,600	9,400	8,000	8,242	8,490	8,747	9,011	9,283
FICA/Medicare	3	581	719	980	1,010	1,040	1,071	1,104	1,137
Travel, Meetings & Mileage	3	-	-	-	-	-	-	-	-
Travel, Meetings & Mileage	3	2,028	117	2,700	2,782	2,866	2,952	3,041	3,133
Credit Card Service Charges	3	12,291	15,117	14,000	14,423	14,858	15,307	15,769	16,246
Bank Service Charges	3	3,701	6,210	-	-	-	-	-	-
Business Insurance Expense	3	98,046	110,950	128,000	131,866	135,848	139,951	144,177	148,531
Misc. Other Expense	3	2,663	1,130	500	515	531	547	563	580
Retired Employee Health	3	14,386	11,440	15,346	15,810	16,287	16,779	17,286	17,808
Safety Training Program	3	-	-	5,000	5,000	5,000	5,000	5,000	5,151
Employee Part Time	3	-	-	40,000	40,000	40,000	40,000	40,000	41,208
<b>SUBTOTAL: SALARIES AND BENEFITS</b>		<b>\$ 902,650</b>	<b>\$ 939,898</b>	<b>\$ 1,137,024</b>	<b>\$ 1,170,003</b>	<b>\$ 1,203,978</b>	<b>\$ 1,238,979</b>	<b>\$ 1,275,037</b>	<b>\$ 1,313,543</b>

WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 6 : OPERATING EXPENSE FORECAST, cont.<sup>1</sup>

DESCRIPTION	Basis	Actual	Actual	5-Year Projected Rate Period					
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
<b>PG&amp;E POWER</b>									
P G & E Power - Office	6	\$ 3,977	\$ 4,154	\$ 4,400	\$ 4,767	\$ 5,166	\$ 5,597	\$ 6,064	\$ 6,571
P G & E Power - Intake	6	140,023	151,886	186,651	202,237	219,125	237,424	257,250	278,732
P G & E Power - Well	6	3,920	4,038	8,575	9,291	10,067	10,908	11,819	12,806
P G & E Power - Water Treatment	6	41,054	45,376	58,270	63,136	68,408	74,121	80,310	87,017
P G & E Power - Distribution	6	48,492	56,453	72,399	78,445	84,995	92,093	99,783	108,116
P G & E Power - Well 2	6	725	10,989	11,345	12,293	13,319	14,432	15,637	16,942
P G & E Power - Medina	6	4,374	3,272	6,240	6,761	7,326	7,937	8,600	9,318
P G & E Power - Well 5/6	6	4,374	2,976	6,282	6,807	7,375	7,991	8,658	9,381
<b>SUBTOTAL: PG&amp;E POWER</b>		<b>\$ 246,939</b>	<b>\$ 279,144</b>	<b>\$ 354,163</b>	<b>\$ 383,737</b>	<b>\$ 415,782</b>	<b>\$ 450,502</b>	<b>\$ 488,122</b>	<b>\$ 528,883</b>
<b>WATER SYSTEM</b>									
Water Testing Fees	2	\$ 14,600	\$ 13,401	\$ 14,675	\$ 14,675	\$ 15,181	\$ 15,705	\$ 16,247	\$ 16,807
Water System Fees	2	13,343	5,071	13,700	13,700	14,173	14,662	15,167	15,691
Water Testing Materials	8	2,556	3,113	3,200	3,200	3,312	3,428	3,548	3,672
Water Treatment Chemicals	4	85,116	101,176	95,000	95,000	100,175	105,631	111,385	117,452
Purchased Water Actual-mid-p	2	114,914	88,954	120,032	120,032	124,173	128,457	132,889	137,473
Tank Cleaning	2	-	-	13,104	13,725	8,978	19,656	20,588	20,334
Filter Maint Inspection	2	-	-	15,000	17,000	20,000	22,000	25,000	22,759
<b>SUBTOTAL: WATER SYSTEM</b>		<b>\$ 230,529</b>	<b>\$ 211,715</b>	<b>\$ 274,711</b>	<b>\$ 277,332</b>	<b>\$ 285,991</b>	<b>\$ 309,539</b>	<b>\$ 324,823</b>	<b>\$ 334,189</b>



WATER RATE STUDY

Operating Revenue and Expenses

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 7 : OPERATING EXPENSE FORECAST, cont.<sup>1</sup>

DESCRIPTION	Basis	Actual		5-Year Projected Rate Period					
		FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
<b>OTHER EXPENSES</b>									
Travel, Meetings & Mileage	2	\$ 2,621	\$ 902	\$ 1,746	\$ 933	\$ 1,806	\$ 1,868	\$ 1,933	\$ 2,000
Lease Of Equipment	2	-	-	-	-	-	-	-	-
Repair & Maintenance - Plant	2	14,244	18,959	20,000	19,613	20,690	21,404	22,142	22,906
Repair & Maintenance - Vehicle	2	8,217	16,180	12,760	16,738	13,200	13,656	14,127	14,614
Repair & Maintenance - Distribution	2	38,213	30,053	33,000	31,090	34,139	35,316	36,535	37,795
R&M Transmission - Intake	2	3,902	-	-	-	-	-	-	-
R&M Transmission - Well #2	2	15,000	-	-	-	-	-	-	-
Small Tools & Equipment	2	5,472	3,228	6,019	3,339	6,227	6,442	6,664	6,894
Vehicle Equipment Fuel	7	17,669	16,843	20,874	18,035	22,351	23,933	25,627	27,441
Gas, Oil & Lubricant - Plant	2	2,507	1,634	2,485	1,690	2,571	2,659	2,751	2,846
Health & Safety	2	4,808	7,665	6,873	7,929	7,111	7,356	7,610	7,872
Telephone - T & D	2	15,416	19,435	19,446	20,106	20,117	20,811	21,529	22,272
Outside Services	2	21,217	4,634	5,652	4,794	5,847	6,049	6,257	6,473
Fire Protection/Weed Control	2	-	-	4,850	-	5,017	5,190	5,369	5,555
Pest Control	2	5,213	5,231	550	5,411	569	589	609	630
Engineering Services	2	2,869	-	3,500	-	3,621	3,746	3,875	4,009
Employee Education	2	606	455	2,000	471	2,069	2,140	2,214	2,291
Memberships	2	1,211	16	1,500	17	1,552	1,605	1,661	1,718
Publications	2	-	70	-	72	-	-	-	-
Licenses, Permits & Cert.	2	630	2,966	1,200	3,068	1,241	1,284	1,329	1,374
Travel, Meetings & Mileage	2	1,689	2,175	2,245	2,250	2,322	2,403	2,485	2,571
Propane	7	647	1,094	1,254	1,171	1,343	1,438	1,540	1,649
Customer Billing Supplies	2	4,058	6,378	6,500	6,598	6,724	6,956	7,196	7,444
Telephone - Admin	2	20,360	26,240	27,000	27,145	27,932	28,895	29,892	30,923
Office Supplies	2	4,281	3,652	3,700	3,778	3,828	3,960	4,096	4,238
Postage	2	11,218	11,064	10,000	11,446	10,345	10,702	11,071	11,453
Computer IT	2	33,335	28,178	30,600	29,150	31,656	32,748	33,878	35,046
R & M Equipment	2	-	217	5,000	224	5,173	5,351	5,536	5,727
Outside Services	2	32,916	35,287	35,500	36,504	36,725	37,992	39,302	40,658
Temporary Outside Labor	2	-	-	-	-	-	-	-	-
Office Cleaning Serv	2	2,040	1,980	2,376	2,048	2,458	2,543	2,630	2,721
Legal Services	2	39,489	4,788	7,500	4,953	7,759	8,026	8,303	8,590
Audit Services	2	8,600	11,325	12,000	11,716	12,414	12,842	13,285	13,744
Employee Education	2	1,451	-	2,700	-	2,793	2,890	2,989	3,092
Memberships	2	7,841	10,123	10,500	10,472	10,862	11,237	11,625	12,026
Publications	2	823	723	800	748	828	856	886	916
Licenses, Permits & Cert.	2	-	2,776	3,000	2,872	3,104	3,211	3,321	3,436
Filter Media Replacement	9	-	-	150,000	-	-	-	-	-
County Fees	2	-	-	-	-	-	-	-	-
County Avail Fee	2	1,857	1,866	2,200	1,930	2,276	2,354	2,436	2,520
Maint for Bldgs	2	-	-	10,000	10,000	10,000	10,000	10,000	10,345
Office Equipment	2	-	-	1,500	1,500	1,500	1,500	1,500	1,552
Copier Machine	2	-	-	15,000	1,000	1,000	1,200	1,300	1,241
<b>Subtotal: Other Expenses</b>		<b>\$ 330,420</b>	<b>\$ 276,137</b>	<b>\$ 481,831</b>	<b>\$ 298,815</b>	<b>\$ 329,167</b>	<b>\$ 341,152</b>	<b>\$ 353,504</b>	<b>\$ 366,582</b>
<b>GRAND TOTAL: WATER EXPENSES</b>		<b>\$ 1,710,538</b>	<b>\$ 1,706,894</b>	<b>\$ 2,247,728</b>	<b>\$ 2,129,886</b>	<b>\$ 2,234,918</b>	<b>\$ 2,340,172</b>	<b>\$ 2,441,486</b>	<b>\$ 2,543,197</b>

WATER RATE STUDY

Operating Revenue and Expenses

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 8 : FORECASTING ASSUMPTIONS**

INFLATION FACTORS <sup>3</sup>	Basis	2022	2023	2024	2025	2026	2027	2028	2029
Customer Growth <sup>2</sup>	1	--	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Cost Inflation <sup>4</sup>	2	--	--	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%
Labor Cost Inflation <sup>5</sup>	3	--	--	3.02%	3.02%	3.02%	3.02%	3.02%	3.02%
Chemicals <sup>6</sup>	4	--	--	5.45%	5.45%	5.45%	5.45%	5.45%	5.45%
Energy <sup>7</sup>	5	--	--	10.84%	10.84%	10.84%	10.84%	10.84%	10.84%
Electricity <sup>8</sup>	6	--	--	8.35%	8.35%	8.35%	8.35%	8.35%	8.35%
Fuel & Utilities <sup>9</sup>	7	--	--	7.08%	7.08%	7.08%	7.08%	7.08%	7.08%
Construction Cost Inflation <sup>10</sup>	8	--	--	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
No Escalation	9	--	--	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

1. Revenue and expenses for FY 2022/23 through FY 2024/25 provided by the District. Revenues and expenses for all other years are escalated based on the forecasting assumptions in Table 8. Source files:
2. Customer growth estimated by NBS conservatively at 0% annually.
3. Expenses are inflated each year by the following annual inflation factor categories.
4. General cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
5. Labor cost inflation is based on the 10-year average annual change in the Quarterly Census of Employment and Wages for San Francisco County, CA.
6. Chemical cost inflation is based on the 5-year average annual change in the Producer Price Index for Chemical Manufacturing.
7. Energy cost inflation is based on the 5-year average annual change in the Consumer Price Index for all Urban Consumers in the San Francisco-Oakland-Hayward, CA area.
8. Electricity cost inflation is based on the 5-year average change in the Consumer Price Index for San Francisco County.
9. Fuel & Utilities cost inflation is based on the 5-year average annual change in the Consumer Price Index - Average Price Data for Fuels and related products and power. This factor is used for utility costs of
10. Construction cost Inflation is the 10-year average change in the Construction Cost Index for 2012-2022. Source: Engineering News Record website (<http://enr.construction.com>).

WATER RATE STUDY

Capital Improvement Plan Expenditures

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 9 : CAPITAL FUNDING SUMMARY

CAPITAL FUNDING FORECAST		5-Year Projected Rate Period				
Funding Sources:	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	
Grants	\$ 4,765,962	\$ -	\$ -	\$ -	\$ -	
Use of Capacity Fee Reserves	-	-	-	-	-	
SRF Loan Funding	-	1,035,000	-	-	-	
Use of New Revenue Bond Proceeds	-	-	-	-	-	
Use of Capital Rehabilitation and Replacement Reserve	-	-	-	-	-	
Rate Revenue	103,000	249,435	298,872	151,894	131,965	
<b>Total Sources of Capital Funds</b>	<b>\$ 4,868,962</b>	<b>\$ 1,284,435</b>	<b>\$ 298,872</b>	<b>\$ 151,894</b>	<b>\$ 131,965</b>	
<b>Uses of Capital Funds</b>						
Total Project Costs	\$ 4,868,962	\$ 1,284,435	\$ 298,872	\$ 151,894	\$ 131,965	
<b>Capital Funding Surplus (Deficiency)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>SRF Loan Funding<sup>1</sup></b>	<b>\$ -</b>	<b>\$ 1,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
<b>New Revenue Bond Proceeds</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	

TABLE 10 : CAPITAL IMPROVEMENT PROGRAM FUNDING OPTIONS

Policy Choice	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
1 Alternative 1 - Full Funding of CIP	\$ 4,868,962	\$ 1,284,435	\$ 298,872	\$ 151,894	\$ 131,965
2 Alternative 2 - 75% Funding of CIP	\$ 3,651,722	\$ 963,326	\$ 224,154	\$ 113,921	\$ 98,974
3 Alternative 3 - 50% Funding of CIP	\$ 2,434,481	\$ 642,218	\$ 149,436	\$ 75,947	\$ 65,983

Insert policy choice in box to right, based on options listed above:

Capital Improvement Program Funding Choice	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Effective Annual Funding Amount	\$ 4,868,962	\$ 1,284,435	\$ 298,872	\$ 151,894	\$ 131,965

WATER RATE STUDY

Capital Improvement Plan Expenditures

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

CAPITAL IMPROVEMENT PROGRAM

**TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS** (in Current-Year Dollars)<sup>1</sup>

Project Description	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Capital Improvement Program</i>					
Used Equipment	\$ -	\$ -	\$ 170,000	\$ -	\$ -
Bobcat/Front end loader	-	25,000	-	25,000	-
Vehicle Replacement	-	60,000	-	-	-
Altitude Valves	30,000	31,000	32,000	33,000	34,000
Inventory / Parts	10,000	10,000	10,000	10,000	10,000
Meter System	-	1,000,000	-	-	-
Solar	-	50,000	-	-	-
Valve replacement	48,000	49,000	50,000	51,000	52,000
Pressure Regulating Replacement	15,000	16,000	17,000	18,000	19,000
Intake Pump Station Project (Grant Funded)	4,265,962	-	-	-	-
Planning Document (Grant Funded)	500,000	-	-	-	-
<b>Total: CIP Program Costs (Current-Year Dollars)</b>	<b>\$ 4,868,962</b>	<b>\$ 1,241,000</b>	<b>\$ 279,000</b>	<b>\$ 137,000</b>	<b>\$ 115,000</b>

Capital Improvement Plan Expenditures

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 12 : CAPITAL IMPROVEMENT PROGRAM COSTS (in Future-Year Dollars)<sup>2</sup>**

Project Description	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Capital Improvement Program</i>					
Used Equipment	-	-	182,108	-	-
Bobcat/Front end loader	-	25,875	-	27,718	-
Vehicle Replacement	-	62,100	-	-	-
Altitude Valves	30,000	32,085	34,279	36,588	39,016
Inventory / Parts	10,000	10,350	10,712	11,087	11,475
Meter System	-	1,035,000	-	-	-
Solar	-	51,750	-	-	-
Valve replacement	48,000	50,715	53,561	56,545	59,671
Pressure Regulating Replacement	15,000	16,560	18,211	19,957	21,803
Intake Pump Station Project (Grant Funded)	4,265,962	-	-	-	-
Planning Document (Grant Funded)	500,000	-	-	-	-
<i>Future CIP Costs<sup>2</sup></i>	-	-	-	-	-
<b>Total: CIP Program Costs (Future-Year Dollars)</b>	<b>\$ 4,868,962</b>	<b>\$ 1,284,435</b>	<b>\$ 298,872</b>	<b>\$ 151,894</b>	<b>\$ 131,965</b>

WATER RATE STUDY

Capital Improvement Plan Expenditures

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 13 : FORECASTING ASSUMPTIONS**

Economic Variables	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
Annual Construction Cost Inflation, Per Engineering News Record <sup>3</sup>	0.00%	3.50%	3.50%	3.50%	3.50%
Cumulative Construction Cost Multiplier from FY 2024/25	1.00	1.04	1.07	1.11	1.15

1. Capital project costs were provided by City Staff and assumes Year 1 begins in FY 2024/25. Source file: *Lake Don Pedro CIP*
2. The capital project costs have been inflated using the Construction Cost Index (See Table 13). Website: <http://enr.construction.com> .
3. For reference purposes, the annual Construction Cost Inflation percentage is the 5-year average change in the Construction Cost Index from 2017 to 2022 (3.91%).  
Source: Engineering News Record website (<http://enr.construction.com>).

WATER RATE STUDY

Debt Service

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 18 : EXISTING DEBT OBLIGATIONS

EXISTING DEBT OBLIGATIONS	Actual		5-Year Projected Rate Period					
	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29	FY 2029/30
<b>Annual Repayment Schedules:</b>								
Muni-Finance Loan (\$1,500,000) <sup>1</sup>								
Principal Payment	\$ 96,683	\$ 101,528	\$ 106,616	\$ 111,958	\$ 58,066	\$ -	\$ -	\$ -
Interest Payment	22,323	17,478	12,390	7,048	1,437	-	-	-
<b>Subtotal: Annual Debt Service</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 59,503</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
Coverage Requirement (\$-Amnt above annual payment)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reserve Requirement (total fund balance)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Grand Total: Existing Annual Debt Service</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 119,006</b>	<b>\$ 59,503</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Grand Total: Existing Annual Coverage Requirement</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Grand Total: Existing Debt Reserve Target</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

1. Debt schedule for Muni Loan found in source file: Lake Don Pedro - Loan Repayment Schedule.pdf

LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
 WATER RATE STUDY

Current Rate Schedule

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

EXHIBIT 4

TABLE 23 : CURRENT WATER RATE SCHEDULE

Water Rate Schedule		Current Rates
<b>Monthly Fixed Service Charges<sup>1</sup></b>		
<b>Residential</b>		
	5/8 inch	\$61.91
	1 inch	\$155.50
	2 inch	\$380.13
<b>Commercial</b>		
	5/8 inch	\$61.91
	1 inch	\$155.50
	1.5 inch	\$192.94
	2 inch	\$380.13
	3 inch	\$604.77
	4 inch	\$941.72
<b>Fire</b>		
	6 inch	\$123.74
<b>Commodity Charges</b>		
All Customers (\$/hcf) <sup>2</sup>		\$2.76

1. Monthly Water Rates per source file: *Lake Don Pedro CSD\_ Water Rate Model\_07.02.21*

2. HCF = Hundred Cubic Feet or 748 gallons.



WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 24 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Classification of Expenses									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2024/25	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
<b>Salaries And Benefits</b>									
Regular Pay - Plant	\$ 284,724	\$ 50,966	\$ 218,953	\$ 14,236	\$ 569	17.9%	76.9%	5.0%	0.2%
Overtime Pay	32,000	5,728	24,608	1,600	64	17.9%	76.9%	5.0%	0.2%
Sick Pay	12,836	2,298	9,871	642	26	17.9%	76.9%	5.0%	0.2%
Vacation Pay	16,088	2,880	12,371	804	32	17.9%	76.9%	5.0%	0.2%
Holiday Pay	20,453	3,661	15,729	1,023	41	17.9%	76.9%	5.0%	0.2%
Pers	27,656	4,950	21,268	1,383	55	17.9%	76.9%	5.0%	0.2%
Fica/Medicare	24,861	4,450	19,118	1,243	50	17.9%	76.9%	5.0%	0.2%
Sui	591	106	454	30	1	17.9%	76.9%	5.0%	0.2%
Health Insurance	65,662	11,754	50,494	3,283	131	17.9%	76.9%	5.0%	0.2%
Workers Compensation	11,767	2,106	9,049	588	24	17.9%	76.9%	5.0%	0.2%
Dental Insurance	4,162	745	3,201	208	8	17.9%	76.9%	5.0%	0.2%
Regular Pay - Administration	314,198	56,241	241,618	15,710	628	17.9%	76.9%	5.0%	0.2%
Overtime Pay	3,500	627	2,692	175	7	17.9%	76.9%	5.0%	0.2%
Sick Pay	11,702	2,095	8,999	585	23	17.9%	76.9%	5.0%	0.2%
Vacation Pay	11,021	1,973	8,475	551	22	17.9%	76.9%	5.0%	0.2%
Holiday Pay	5,917	1,059	4,550	296	12	17.9%	76.9%	5.0%	0.2%
Pers	23,232	4,159	17,866	1,162	46	17.9%	76.9%	5.0%	0.2%
Fica/Medicare	21,530	3,854	16,556	1,076	43	17.9%	76.9%	5.0%	0.2%
Sui	828	148	637	41	2	17.9%	76.9%	5.0%	0.2%
Health Insurance	24,912	4,459	19,157	1,246	50	17.9%	76.9%	5.0%	0.2%
Workers Compensation	684	122	526	34	1	17.9%	76.9%	5.0%	0.2%
Dental Insurance	3,972	711	3,054	199	8	17.9%	76.9%	5.0%	0.2%
Vision Care	200	36	154	10	0	17.9%	76.9%	5.0%	0.2%
Regular Pay	8,000	1,432	6,152	400	16	17.9%	76.9%	5.0%	0.2%
Fica/Medicare	980	175	754	49	2	17.9%	76.9%	5.0%	0.2%
Travel, Meetings & Mileage	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Travel, Meetings & Mileage	2,700	483	2,076	135	5	17.9%	76.9%	5.0%	0.2%
Credit Card Service Charges	14,000	2,506	10,766	700	28	17.9%	76.9%	5.0%	0.2%
Bank Service Charges	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Business Insurance Expense	128,000	22,912	98,432	6,400	256	17.9%	76.9%	5.0%	0.2%
Misc. Other Expense	500	90	385	25	1	17.9%	76.9%	5.0%	0.2%
Retired Employee Health	15,346	2,747	11,801	767	31	17.9%	76.9%	5.0%	0.2%
Safety Training Program	5,000	895	3,845	250	10	17.9%	76.9%	5.0%	0.2%
Employee Part Time	40,000	7,160	30,760	2,000	80	17.9%	76.9%	5.0%	0.2%
<b>Subtotal: Salaries And Benefits</b>	<b>\$ 1,137,024</b>	<b>\$ 203,527</b>	<b>\$ 874,371</b>	<b>\$ 56,851</b>	<b>\$ 2,274</b>	<b>17.9%</b>	<b>76.9%</b>	<b>5.0%</b>	<b>0.0%</b>

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 25 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2024/25	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
<b>PG&amp;E POWER</b>									
P G & E Power - Office	\$ 4,400	\$ 1,971	\$ 2,200	\$ 220	\$ 9	44.8%	50.0%	5.0%	0.2%
P G & E Power - Intake	186,651	83,620	93,325	9,333	373	44.8%	50.0%	5.0%	0.2%
P G & E Power - Well	8,575	3,842	4,288	429	17	44.8%	50.0%	5.0%	0.2%
P G & E Power - Water Treatment	58,270	26,105	29,135	2,914	117	44.8%	50.0%	5.0%	0.2%
P G & E Power - Distribution	72,399	32,435	36,199	3,620	145	44.8%	50.0%	5.0%	0.2%
P G & E Power - Well 2	11,345	5,083	5,673	567	23	44.8%	50.0%	5.0%	0.2%
P G & E Power - Medina	6,240	2,796	3,120	312	12	44.8%	50.0%	5.0%	0.2%
P G & E Power - Well 5/6	6,282	2,814	3,141	314	13	44.8%	50.0%	5.0%	0.2%
<b>Subtotal: Pg&amp;E Power</b>	<b>\$ 354,163</b>	<b>\$ 158,665</b>	<b>\$ 177,081</b>	<b>\$ 17,708</b>	<b>\$ 708</b>	<b>44.8%</b>	<b>50.0%</b>	<b>5.0%</b>	<b>0.2%</b>
<b>Water System</b>									
Water Testing Fees	\$ 14,675	\$ 14,675	\$ -	\$ -	\$ -	100.0%	0.0%	0.0%	0.0%
Water System Fees	13,700	13,700	-	-	-	100.0%	0.0%	0.0%	0.0%
Water Testing Materials	3,200	3,200	-	-	-	100.0%	0.0%	0.0%	0.0%
Water Treatment Chemicals	95,000	95,000	-	-	-	100.0%	0.0%	0.0%	0.0%
Purchased Water Actual-Mid-P	120,032	120,032	-	-	-	100.0%	0.0%	0.0%	0.0%
Tank Cleaning	13,104	13,104	-	-	-	100.0%	0.0%	0.0%	0.0%
Filter Maint Inspection	15,000	15,000	-	-	-	100.0%	0.0%	0.0%	0.0%
<b>Subtotal: Water System</b>	<b>\$ 274,711</b>	<b>\$ 274,711</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 26 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, continued									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2024/25	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
<b>Other Expenses</b>									
Travel, Meetings & Mileage	\$ 1,746	\$ 313	\$ 1,343	\$ 87	\$ 3	17.9%	76.9%	5.0%	0.2%
Lease Of Equipment	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Repair & Maintenance - Plant	20,000	3,580	15,380	1,000	40	17.9%	76.9%	5.0%	0.2%
Repair & Maintenance - Vehicle	12,760	2,284	9,812	638	26	17.9%	76.9%	5.0%	0.2%
Repair & Maintenance - Distribution	33,000	5,907	25,377	1,650	66	17.9%	76.9%	5.0%	0.2%
R&M Transmission - Intake	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
R&M Transmission - Well #2	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Small Tools & Equipment	6,019	1,077	4,629	301	12	17.9%	76.9%	5.0%	0.2%
Vehicle Equipment Fuel	20,874	3,736	16,052	1,044	42	17.9%	76.9%	5.0%	0.2%
Gas, Oil & Lubricant - Plant	2,485	445	1,911	124	5	17.9%	76.9%	5.0%	0.2%
Health & Safety	6,873	1,230	5,286	344	14	17.9%	76.9%	5.0%	0.2%
Telephone - T & D	19,446	3,481	14,954	972	39	17.9%	76.9%	5.0%	0.2%
Outside Services	5,652	1,012	4,346	283	11	17.9%	76.9%	5.0%	0.2%
Fire Protection/Weed Control	4,850	868	3,730	243	10	17.9%	76.9%	5.0%	0.2%
Pest Control	550	98	423	28	1	17.9%	76.9%	5.0%	0.2%
Engineering Services	3,500	627	2,692	175	7	17.9%	76.9%	5.0%	0.2%
Employee Education	2,000	358	1,538	100	4	17.9%	76.9%	5.0%	0.2%
Memberships	1,500	269	1,154	75	3	17.9%	76.9%	5.0%	0.2%
Publications	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Licenses, Permits & Cert.	1,200	215	923	60	2	17.9%	76.9%	5.0%	0.2%
Travel, Meetings & Mileage	2,245	402	1,726	112	4	17.9%	76.9%	5.0%	0.2%
Propane	1,254	224	964	63	3	17.9%	76.9%	5.0%	0.2%
Customer Billing Supplies	6,500	(13)	-	6,500	13	-0.2%	0.0%	100.0%	0.2%
Telephone - Admin	27,000	4,833	20,763	1,350	54	17.9%	76.9%	5.0%	0.2%
Office Supplies	3,700	662	2,845	185	7	17.9%	76.9%	5.0%	0.2%
Postage	10,000	(20)	-	10,000	20	-0.2%	0.0%	100.0%	0.2%
Computer It	30,600	5,477	23,531	1,530	61	17.9%	76.9%	5.0%	0.2%
R & M Equipment	5,000	895	3,845	250	10	17.9%	76.9%	5.0%	0.2%
Outside Services	35,500	6,355	27,300	1,775	71	17.9%	76.9%	5.0%	0.2%
Temporary Outside Labor	-	-	-	-	-	17.9%	76.9%	5.0%	0.2%
Office Cleaning Serv	2,376	425	1,827	119	5	17.9%	76.9%	5.0%	0.2%
Legal Services	7,500	1,343	5,768	375	15	17.9%	76.9%	5.0%	0.2%
Audit Services	12,000	2,148	9,228	600	24	17.9%	76.9%	5.0%	0.2%
Employee Education	2,700	483	2,076	135	5	17.9%	76.9%	5.0%	0.2%
Memberships	10,500	1,880	8,075	525	21	17.9%	76.9%	5.0%	0.2%
Publications	800	143	615	40	2	17.9%	76.9%	5.0%	0.2%
Licenses, Permits & Cert.	3,000	537	2,307	150	6	17.9%	76.9%	5.0%	0.2%
Filter Media Replacement	150,000	26,850	115,350	7,500	300	17.9%	76.9%	5.0%	0.2%
County Fees	-	-	-	-	-	-0.1%	94.9%	5.0%	0.2%
County Avail Fee	2,200	(2)	2,088	110	4	-0.1%	94.9%	5.0%	0.2%
Maint For Bldgs	10,000	1,790	7,690	500	20	17.9%	76.9%	5.0%	0.2%
Office Equipment	1,500	269	1,154	75	3	17.9%	76.9%	5.0%	0.2%
Copier Machine	15,000	2,685	11,535	750	30	17.9%	76.9%	5.0%	0.2%
<b>Subtotal: Other Expenses</b>	<b>\$ 481,831</b>	<b>\$ 82,865</b>	<b>\$ 358,235</b>	<b>\$ 39,767</b>	<b>\$ 964</b>	<b>17.2%</b>	<b>74.3%</b>	<b>8.3%</b>	<b>0.2%</b>
<b>GRAND TOTAL: WATER EXPENSES</b>	<b>\$ 2,247,728</b>	<b>\$ 719,768</b>	<b>\$ 1,409,688</b>	<b>\$ 114,326</b>	<b>\$ 3,946</b>	<b>32.0%</b>	<b>62.7%</b>	<b>5.1%</b>	<b>0.2%</b>

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 27 : CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS, cont.

Classification of Expenses, cont.									
Budget Categories	Total Revenue Requirements	Commodity	Capacity	Customer	Fire Protection	Basis of Classification			
	FY 2024/25	(COM)	(CAP)	(CA)	(FP)	(COM)	(CAP)	(CA)	(FP)
<b>Debt Service Payments</b>									
Outstanding Debt	\$ 119,006	\$ -	\$ 119,006	\$ -	\$ -	0.0%	100.0%	0.0%	0.0%
New Debt Issue - SRF Loan	-	-	-	-	-	0.0%	100.0%	0.0%	0.0%
New Debt Issue - Revenue Bond	-	-	-	-	-	0.0%	100.0%	0.0%	0.0%
<b>Total Debt Service Payments</b>	<b>\$ 119,006</b>	<b>\$ -</b>	<b>\$ 119,006</b>	<b>\$ -</b>	<b>\$ -</b>	<b>0.0%</b>	<b>100.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Capital Expenditures</b>									
Rate Funded Capital Expenses	\$ 103,000	\$ 18,540	\$ 79,207	\$ 5,150	\$ 103	18.0%	76.9%	5.0%	0.1%
<b>TOTAL REVENUE REQUIREMENTS</b>	<b>\$ 2,469,734</b>	<b>\$ 738,308</b>	<b>\$ 1,607,901</b>	<b>\$ 119,476</b>	<b>\$ 4,049</b>	<b>29.9%</b>	<b>65.1%</b>	<b>4.8%</b>	<b>0.2%</b>
<b>Less: Non-Rate Revenues</b>									
<b>NON-RATE REVENUE</b>									
Hydrant Revenue	\$ (817)	\$ (146)	\$ (628)	\$ (41)	\$ (2)	17.9%	76.9%	5.0%	0.2%
Charges for Service (other than Rate Revenue)	(300,176)	(53,732)	(230,835)	(15,009)	(600)	17.9%	76.9%	5.0%	0.2%
Investment Income	(6,803)	(1,218)	(5,232)	(340)	(14)	17.9%	76.9%	5.0%	0.2%
Other Revenues	(36,671)	(6,564)	(28,200)	(1,834)	(73)	17.9%	76.9%	5.0%	0.2%
<b>NET REVENUE REQUIREMENTS</b>	<b>\$ 2,125,267</b>	<b>\$ 676,649</b>	<b>\$ 1,343,006</b>	<b>\$ 102,253</b>	<b>\$ 3,360</b>				
<b>Allocation of Revenue Requirements</b>	<b>100.0%</b>	<b>31.8%</b>	<b>63.2%</b>	<b>4.8%</b>	<b>0.2%</b>				
<i>Net Revenue Req't. Check from Financial Plan \$ -</i>									

TABLE 28 : ADJUSTMENT TO CLASSIFICATION OF EXPENSES FOR COST OF SERVICE ANALYSIS

Adjustments to Classification of Expenses					
Adjustment for Current Rate Level:	Total	(COM)	(CAP)	(CA)	(FP)
Test Year (FY 2024/25) Target Rate Rev. After Rate Increases	\$ 2,252,056				
Projected Rate Revenue at Current Rates	\$ 1,668,190				
Test Year (FY 2024/25) Projected Rate Adjustment	35%				
<b>Adjusted Net Revenue Req'ts</b>	<b>\$ 2,252,056</b>	<b>\$ 717,016</b>	<b>\$ 1,423,127</b>	<b>\$ 108,353</b>	<b>\$ 3,561</b>
<i>Percent of Revenue</i>	<i>99.8%</i>	<i>31.8%</i>	<i>63.2%</i>	<i>4.8%</i>	<i>0.2%</i>

TABLE 29 : NET REVENUE REQUIREMENTS PER COSA RESULTS

Net Revenue Requirements - Per COSA Results	Total Rate Revenue Requirements FY 2023/24	Commodity Related Costs	Fixed Costs		
			Capacity Related Costs	Customer Related Costs	Fire Protection Costs
Rate-Design Adjustments to Fixed/Variable %	100.0%	31.8%	63.2%	4.8%	0.2%
Rate-Design Adjustments to Fixed/Variable (\$)	\$2,252,056	\$717,016	\$1,423,127	\$108,353	\$3,561

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 30 : DEVELOPMENT OF THE VOLUMETRIC ALLOCATION FACTOR**

Customer Class	Consumption (HCF) FY 2022/23	FY 2022/23 Percent of Total Volume
<b>Residential</b>		
5/8 inch	153,650	96.8%
1 inch	409	0.3%
2 inch	318	0.2%
<b>Commercial</b>		
5/8 inch	706	0.4%
1 inch	607	0.4%
1.5 inch	0	0.0%
2 inch	2,819	1.8%
3 inch	251	0.2%
4 inch	0	0.0%
<b>Fire</b>		
6 inch	0	0.0%
<b>Total</b>	<b>158,760</b>	<b>100.0%</b>

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

**TABLE 31 : DEVELOPMENT OF THE CUSTOMER ALLOCATION FACTORS**

Customer Class	Number of Meters/Accounts	Percent of Total
<b>Residential</b>		
5/8 inch	1,521	98.6%
1 inch	3	0.2%
2 inch	2	0.1%
<b>Commercial</b>		
5/8 inch	6	0.4%
1 inch	3	0.2%
1.5 inch	1	0.1%
2 inch	5	0.3%
3 inch	1	0.1%
4 inch	1	0.1%
<b>Fire</b>		
6 inch <sup>2</sup>	2	0.0%
<b>Total</b>	<b>1,543</b>	<b>100.0%</b>

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

2. Fire hydrant costs are excluded from customer allocation.

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 32 : DEVELOPMENT OF THE CAPACITY ALLOCATION FACTORS**

Customer Class	Number of Meters/Accounts	Equivalency to 5/8 inch	Total Equivalent Meters	Percent of Total Capacity
<b>Residential</b>				
5/8 inch	1,521	1.00	1,521	93.9%
1 inch	3	2.67	8	0.5%
2 inch	2	6.67	13	0.8%
<b>Commercial</b>			0	
5/8 inch	6	1.00	6	0.4%
1 inch	3	2.67	8	0.5%
1.5 inch	1	3.33	3	0.2%
2 inch	5	6.67	33	2.1%
3 inch	1	10.67	11	0.7%
4 inch	1	16.67	17	1.0%
<b>Fire</b>				
6 inch <sup>2</sup>	0	33.33	0	0.0%
<b>Total</b>	<b>1,543</b>		<b>1,620</b>	<b>100%</b>

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

2. Fire hydrant costs are excluded from capacity allocation.

**TABLE 33 : METER EQUIVALENCY FACTORS USED IN FIXED CHARGES CALCULATION**

Meter Size	Standard Meters	
	Meter Capacity (GPM) <sup>1</sup>	Equivalency to 5/8 inch
	<i>Displacement Meters</i>	
5/8 inch	15	1.00
3/4 inch	25	1.67
1 inch	40	2.67
1 1/2 inch	50	3.33
2 inch	100	6.67
	<i>Compound Class I Meters</i>	
3 inch	160	10.67
4 inch	250	16.67
6 inch	500	33.33

1. Per AWWA, M1 Manual, Table B-1.

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 33 : ALLOCATION OF WATER REVENUE REQUIREMENTS

Classification Components	Cost-of-Service Net Revenue Requirements (FY 2024/25)	
Capacity-Related Costs	\$ 1,423,127	63.2%
Customer-Related Costs	108,353	4.8%
Fire Protection Costs	3,561	0.2%
Commodity-Related Costs	717,016	31.8%
<b>Net Revenue Requirement</b>	<b>\$ 2,252,056</b>	<b>100.0%</b>

*Unadjusted Net Rev. Req'ts.*  
 31.8% total variable  
 68.2% total fixed  
 100.0%

TABLE 34 : ALLOCATION OF NET REVENUE REQUIREMENTS - FY 2024/25

Customer Classes	Classification Components				Cost of Service Net Rev. Req'ts	% of COS Net Revenue Req'ts
	Fixed			Variable		
	Hydraulic Capacity Related Costs	Customer Related Costs	Fire Protection Costs	Volumetric Related Costs		
<b>Residential</b>						
5/8 inch	\$ 1,335,883	\$ 106,808	\$ -	\$ 693,937	\$ 2,136,628	94.9%
1 inch	7,026	211	-	1,847	9,084	0.4%
2 inch	11,711	140	-	1,436	13,287	0.6%
<b>Commercial</b>						
5/8 inch	5,270	421	-	3,189	8,880	0.4%
1 inch	7,026	211	-	2,741	9,978	0.4%
1.5 inch	2,928	70	-	-	2,998	0.1%
2 inch	29,276	351	-	12,732	42,359	1.9%
3 inch	9,368	70	-	1,134	10,572	0.5%
4 inch	14,638	70	-	-	14,708	0.7%
<b>Fire</b>						
6 inch	-	-	3,561	-	3,561	0.2%
<b>Total Net Revenue Requirement</b>	<b>\$ 1,423,127</b>	<b>\$ 108,353</b>	<b>\$ 3,561</b>	<b>\$ 717,016</b>	<b>\$ 2,252,056</b>	<b>100%</b>
	63.0%	5.0%	0.0%	32.0%	68.0%	



WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 35 : RATE DESIGN - SUMMARY OF REVENUE REQUIREMENTS

Customer Class	COSA Net Revenue Requirements		ALTERNATIVE 1 (70% FIXED / 30% VOLUMETRIC)					
	FY 2024/25	% of COS Rev. Req't.	% Fixed Revenue	% Variable Revenue	Fixed			Variable
					Revenue from Hydraulic Capacity Charges	Revenue from Customer Costs	Revenue from Fire Protection Costs	Revenue from Volumetric Charges
<b>Residential</b>								
5/8 inch	\$ 2,136,628	94.9%	70%	30%	\$ 1,388,832	\$ 106,808	\$ -	\$ 640,988
1 inch	9,084	0.4%	70%	30%	6,148	211	-	2,725
2 inch	13,287	0.6%	70%	30%	9,161	140	-	3,986
<b>Commercial</b>								
5/8 inch	8,880	0.4%	70%	30%	5,794	421	-	2,664
1 inch	9,978	0.4%	70%	30%	6,774	211	-	2,994
1.5 inch	2,998	0.1%	70%	30%	2,028	70	-	899
2 inch	42,359	1.9%	70%	30%	29,300	351	-	12,708
3 inch	10,572	0.5%	70%	30%	7,330	70	-	3,172
4 inch	14,708	0.7%	70%	30%	10,226	70	-	4,413
<b>Fire</b>								
6 inch	3,561	0.2%	100%	0%	-	-	3,561	-
<b>Total</b>	<b>\$ 2,252,056</b>	<b>100.0%</b>			<b>\$ 1,465,594</b>	<b>\$ 108,353</b>	<b>\$ 3,561</b>	<b>\$ 674,549</b>
	<i>Percent of Total Revenue Collected</i>		<i>70%</i>	<i>30%</i>				

TABLE 36 : RATE DESIGN - SUMMARY OF REVENUE REQUIREMENTS

Customer Class	COSA Net Revenue Requirements		ALTERNATIVE 2 (80% FIXED / 20% VOLUMETRIC)					
	FY 2024/25	% of COS Rev. Req't.	% Fixed Revenue	% Variable Revenue	Fixed			Variable
					Revenue from Hydraulic Capacity Charges	Revenue from Customer Costs	Revenue from Fire Protection Costs	Revenue from Volumetric Charges
<b>Residential</b>								
5/8 inch	\$ 2,136,628	94.9%	80%	20%	\$ 1,602,495	\$ 106,808	\$ -	\$ 427,326
1 inch	9,084	0.4%	80%	20%	7,057	211	-	1,817
2 inch	13,287	0.6%	80%	20%	10,489	140	-	2,657
<b>Commercial</b>								
5/8 inch	8,880	0.4%	80%	20%	6,682	421	-	1,776
1 inch	9,978	0.4%	80%	20%	7,772	211	-	1,996
1.5 inch	2,998	0.1%	80%	20%	2,328	70	-	600
2 inch	42,359	1.9%	80%	20%	33,536	351	-	8,472
3 inch	10,572	0.5%	80%	20%	8,388	70	-	2,114
4 inch	14,708	0.7%	80%	20%	11,697	70	-	2,942
<b>Fire</b>								
6 inch	3,561	0.2%	100%	0%	-	-	3,561	-
<b>Total</b>	<b>\$ 2,252,056</b>	<b>100.0%</b>			<b>\$ 1,690,444</b>	<b>\$ 108,353</b>	<b>\$ 3,561</b>	<b>\$ 449,699</b>
	<i>Percent of Total Revenue Collected</i>		<i>80%</i>	<i>20%</i>				



WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 37 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2024/25

ALTERNATIVE 1 (70% FIXED / 30% VOLUMETRIC)

Number of Meters by Class and Size <sup>1</sup>	FY 2024/25							Total
	5/8" Meter	1" meter	1.5" meter	2" meter	3" meter	4" meter	6" meter	
Residential	1,521	3	0	2	0	0	0	1,526
Commercial	6	3	1	5	1	1	0	17
<b>Total Meters/Accounts</b>	<b>1,527</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1,543</b>
Hydraulic Capacity Factor <sup>2</sup>	1.00	2.67	3.33	6.67	10.67	16.67	33.33	
<b>Total Equivalent Meters</b>	<b>1,527</b>	<b>16</b>	<b>3</b>	<b>47</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>1,620</b>
<b>Monthly Fixed Service Charges</b>								
Customer Costs (\$/Acct/month) <sup>3</sup>	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	
Residential Capacity Costs (\$/Acct/month)	\$75.38	\$201.00	\$251.25	\$502.50	\$804.00	\$1,256.25	\$2,512.50	
<b>Total Monthly Meter Charge</b>	<b>\$81.23</b>	<b>\$206.85</b>	<b>\$257.10</b>	<b>\$508.35</b>	<b>\$809.85</b>	<b>\$1,262.10</b>	<b>\$2,518.36</b>	
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>								
Customer Costs	\$ 108,353							
Capacity Costs	1,465,594							
<b>Total Fixed Meter Costs</b>	<b>\$ 1,573,947</b>							
<b>Annual Revenue from Monthly Meter Charges</b>								
Customer Charges	\$ 107,229	\$ 421	\$ 70	\$ 492	\$ 70	\$ 70	\$ -	\$ 108,353
Capacity Charges	\$ 1,381,174	\$ 14,472	\$ 3,015	\$ 42,210	\$ 9,648	\$ 15,075	\$ -	\$ 1,465,594
<b>Total Revenue from Monthly Meter Char</b>	<b>\$ 1,488,403</b>	<b>\$ 14,893</b>	<b>\$ 3,085</b>	<b>\$ 42,702</b>	<b>\$ 9,718</b>	<b>\$ 15,145</b>	<b>\$ -</b>	<b>\$ 1,573,947</b>

- Meter by Class and Size are based on June 2023 customer billing data.
- Source: *Principles of Water Rates, Fees, and Charges*, Manual M1, AWWA, Table B-1.
- Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

TABLE 38 : CALCULATION OF MONTHLY FIXED METER SERVICE CHARGES FOR FY 2024/25

ALTERNATIVE 2 (80% FIXED / 20% VOLUMETRIC)

Number of Meters by Class and Size <sup>1</sup>	FY 2024/25							Total
	5/8" Meter	1" meter	1.5" meter	2" meter	3" meter	4" meter	6" meter	
Residential	1,521	3	0	2	0	0	0	1,526
Commercial	6	3	1	5	1	1	0	17
<b>Total Meters/Accounts</b>	<b>1,527</b>	<b>6</b>	<b>1</b>	<b>7</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1,543</b>
Hydraulic Capacity Factor <sup>2</sup>	1.00	2.67	3.33	6.67	10.67	16.67	33.33	
<b>Total Equivalent Meters</b>	<b>1,527</b>	<b>16</b>	<b>3</b>	<b>47</b>	<b>11</b>	<b>17</b>	<b>0</b>	<b>1,620</b>
<b>Monthly Fixed Service Charges</b>								
Customer Costs (\$/Acct/month) <sup>3</sup>	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	\$5.85	
Residential Capacity Costs (\$/Acct/month)	\$86.94	\$231.84	\$289.80	\$579.59	\$927.35	\$1,448.98	\$2,897.97	
<b>Total Monthly Meter Charge</b>	<b>\$92.79</b>	<b>\$237.69</b>	<b>\$295.65</b>	<b>\$585.45</b>	<b>\$933.20</b>	<b>\$1,454.84</b>	<b>\$2,903.82</b>	
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>								
Customer Costs	\$ 108,353							
Capacity Costs	1,690,444							
<b>Total Fixed Meter Costs</b>	<b>\$ 1,798,796</b>							
<b>Annual Revenue from Monthly Meter Charges</b>								
Customer Charges	\$ 107,229	\$ 421	\$ 70	\$ 492	\$ 70	\$ 70	\$ -	\$ 108,353
Capacity Charges	\$ 1,593,072	\$ 16,692	\$ 3,478	\$ 48,686	\$ 11,128	\$ 17,388	\$ -	\$ 1,690,444
<b>Total Revenue from Monthly Meter Char</b>	<b>\$ 1,700,301</b>	<b>\$ 17,114</b>	<b>\$ 3,548</b>	<b>\$ 49,177</b>	<b>\$ 11,198</b>	<b>\$ 17,458</b>	<b>\$ -</b>	<b>\$ 1,798,796</b>

- Meter by Class and Size are based on June 2023 customer billing data.
- Source: *Principles of Water Rates, Fees, and Charges*, Manual M1, AWWA, Table B-1.
- Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

WATER RATE STUDY

Cost-of-Service Analysis & Rate Design

Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute

TABLE 39 : CALCULATION OF MONTHLY FIRE PROTECTION METER SERVICE CHARGES FOR FY 2024/25

Number of Meters by Class and Size <sup>1</sup>	FY 2024/25							Total
	5/8" Meter	1" meter	1.5" meter	2" meter	3" meter	4" meter	6" meter	
Fire Protection	0	0	0	0	0	0	2	2
<b>Total Meters/Accounts</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
Hydraulic Capacity Factor <sup>2</sup>	1.00	2.67	3.33	6.67	10.67	16.67	33.33	
<b>Total Equivalent Meters</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>0</b>
<b>Monthly Fixed Service Charges</b>								
Fire Protection Costs (\$/Acct/month) <sup>3</sup>		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$148
<b>Total Monthly Meter Charge</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$148</b>
<b>Annual Fixed Costs Allocated to Monthly Meter Charges</b>								
Fire Protection	\$ 3,561							
<b>Total Fixed Meter Costs</b>	<b>\$ 3,561</b>							
<b>Annual Revenue from Monthly Meter Charges</b>								
Fire Protection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,561
<b>Total Revenue from Monthly Meter Char</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,561</b>

- Meter by Class and Size are based on June 2023 customer billing data.
- Source: *Principles of Water Rates, Fees, and Charges*, Manual M1, AWWA, Table B-1.
- Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
- Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 39 : PROPOSED VOLUMETRIC CHARGES FOR FY 2024/25

**ALTERNATIVE 1 (70% FIXED / 30% VOLUMETRIC)**

Customer Classes	Water Consumption (HCF/yr)	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/HCF)	Proposed Rate Structure
<b>Residential</b>					
5/8 inch	153,650	\$ 640,988	28.46%	\$4.25	Uniform
1 inch	409	2,725	0.12%	\$4.25	Uniform
2 inch	318	3,986	0.18%	\$4.25	Uniform
<b>Commercial</b>					
5/8 inch	706	2,664	0.12%	\$4.25	Uniform
1 inch	607	2,994	0.13%	\$4.25	Uniform
1.5 inch	-	899	0.04%	\$4.25	Uniform
2 inch	2,819	12,708	0.56%	\$4.25	Uniform
3 inch	251	3,172	0.14%	\$4.25	Uniform
4 inch	-	4,413	0.20%	\$4.25	Uniform
<b>Fire</b>					
6 inch	-	-	0.00%	\$4.25	Uniform
<b>Total Net Revenue Requirement</b>	<b>158,760</b>	<b>\$ 674,549</b>	<b>30%</b>		

TABLE 40 : PROPOSED VOLUMETRIC CHARGES FOR FY 2024/25

**ALTERNATIVE 2 (80% FIXED / 20% VOLUMETRIC)**

Customer Classes	Water Consumption (HCF/yr)	Total Target Rev. Req't from Vol. Charges	% of Total Rate Revenue	Uniform Commodity Rates (\$/HCF)	Proposed Rate Structure
<b>Residential</b>					
5/8 inch	153,650	\$ 427,326	18.97%	\$2.83	Uniform
1 inch	409	1,817	0.08%	\$2.83	Uniform
2 inch	318	2,657	0.12%	\$2.83	Uniform
<b>Commercial</b>					
5/8 inch	706	1,776	0.08%	\$2.83	Uniform
1 inch	607	1,996	0.09%	\$2.83	Uniform
1.5 inch	-	600	0.03%	\$2.83	Uniform
2 inch	2,819	8,472	0.38%	\$2.83	Uniform
3 inch	251	2,114	0.09%	\$2.83	Uniform
4 inch	-	2,942	0.13%	\$2.83	Uniform
<b>Fire</b>					
6 inch	-	-	0.00%	\$2.83	Uniform
<b>Total Net Revenue Requirement</b>	<b>158,760</b>	<b>\$ 449,699</b>	<b>20%</b>		

LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
WATER RATE STUDY

Proposed Volumetric Charges

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 41 : ESTIMATED VOLUMETRIC REVENUE BY CUSTOMER CLASS

**ALTERNATIVE 1 (70% FIXED / 30% VOLUMETRIC)**

Customer Class	Estimated Consumption (HCF)	Estimated Variable Revenue	% of Variable Rate Revenue	Estimated Fixed Revenue	Total Estimated Revenue	Cost of Service Net Revenue Req'ts
<b>Residential</b>						
5/8 inch	153,650	\$ 652,837	99.98%	\$ 1,495,640	\$ 2,148,477	\$ 2,136,628
1 inch	3	13	0.0020%	6,359	6,372	9,084
2 inch	2	8	0.0013%	9,301	9,310	13,287
<b>Commercial</b>						
5/8 inch	6	25	0.0039%	6,216	6,241	8,880
1 inch	3	13	0.0020%	6,985	6,998	9,978
1.5 inch	1	4	0.0007%	2,099	2,103	2,998
2 inch	5	21	0.0033%	29,651	29,673	42,359
3 inch	1	4	0.0007%	7,401	7,405	10,572
4 inch	1	4	0.0007%	10,296	10,300	14,708
<b>Fire</b>						
6 inch	2	8	0.0013%	3,561	3,569	3,561
<b>Total</b>	<b>153,674</b>	<b>\$ 652,939</b>	<b>100.00%</b>	<b>\$ 1,577,507</b>	<b>\$ 2,230,446</b>	<b>\$ 2,252,056</b>

LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
WATER RATE STUDY

Proposed Volumetric Charges

Cost-of-Service Analysis & Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 42 : ESTIMATED VOLUMETRIC REVENUE BY CUSTOMER CLASS

				ALTERNATIVE 2 (80% FIXED / 20% VOLUMETRIC)		
Customer Class	Estimated Consumption (HCF)	Estimated Variable Revenue	% of Variable Rate Revenue	Estimated Fixed Revenue	Total Estimated Revenue	Cost of Service Net Revenue Req'ts
<b>Residential</b>						
5/8 inch	153,650	\$ 435,225	99.98%	\$ 1,709,303	\$ 2,144,527	\$ 2,136,628
1 inch	3	8	0.0020%	7,267	7,276	9,084
2 inch	2	6	0.0013%	10,630	10,635	13,287
<b>Commercial</b>						
5/8 inch	6	17	0.0039%	7,104	7,121	8,880
1 inch	3	8	0.0020%	7,983	7,991	9,978
1.5 inch	1	3	0.0007%	2,398	2,401	2,998
2 inch	5	14	0.0033%	33,887	33,901	42,359
3 inch	1	3	0.0007%	8,458	8,461	10,572
4 inch	1	3	0.0007%	11,767	11,770	14,708
<b>Fire</b>						
6 inch	2	6	0.0013%	3,561	3,566	3,561
<b>Total</b>	<b>153,674</b>	<b>\$ 435,293</b>	<b>100.00%</b>	<b>\$ 1,802,357</b>	<b>\$ 2,237,649</b>	<b>\$ 2,252,056</b>

LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
WATER RATE STUDY

Current and Proposed Rates

Current and Proposed Rates

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 43 : CURRENT VS. PROPOSED WATER RATES		ALTERNATIVE 1 (70% FIXED / 30% VOLUMETRIC)				
Water Rate Schedule	Current Rates	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Overall Increase in Rate Revenue</i>		35.00%	0.00%	8.00%	8.00%	8.00%
<b>Monthly Fixed Service Charges</b>						
<i>Residential</i>						
5/8 inch	\$61.91	\$81.23	\$81.22	\$87.71	\$94.72	\$102.29
1 inch	\$155.50	\$206.85	\$206.85	\$223.39	\$241.26	\$260.56
2 inch	\$380.13	\$508.35	\$508.35	\$549.01	\$592.93	\$640.36
<i>Commercial</i>						
5/8 inch	\$61.91	\$81.23	\$81.22	\$87.71	\$94.72	\$102.29
1 inch	\$155.50	\$206.85	\$206.85	\$223.39	\$241.26	\$260.56
1.5 inch	\$192.94	\$257.10	\$257.10	\$277.66	\$299.87	\$323.85
2 inch	\$380.13	\$508.35	\$508.35	\$549.01	\$592.93	\$640.36
3 inch	\$604.77	\$809.85	\$809.85	\$874.63	\$944.60	\$1,020.16
<i>Fire</i>						
4 inch	\$941.72	\$1,262.10	\$1,262.10	\$1,363.06	\$1,472.10	\$1,589.86
6 inch	\$123.74	\$148.36	\$148.35	\$160.21	\$173.02	\$186.86
<b>Commodity Charges</b>						
All Customers (\$/hcf)	\$2.76	\$4.25	\$4.24	\$4.57	\$4.93	\$5.32

TABLE 44 : CURRENT VS. PROPOSED WATER RATES		ALTERNATIVE 2 (80% FIXED / 20% VOLUMETRIC)				
Water Rate Schedule	Current	FY 2024/25	FY 2025/26	FY 2026/27	FY 2027/28	FY 2028/29
<i>Overall Increase in Rate Revenue</i>		35.00%	0.00%	8.00%	8.00%	8.00%
<b>Monthly Fixed Service Charges</b>						
<i>Residential</i>						
5/8 inch	\$61.91	\$92.79	\$92.79	\$100.21	\$108.22	\$116.87
1 inch	\$155.50	\$237.69	\$237.68	\$256.69	\$277.22	\$299.39
2 inch	\$380.13	\$585.45	\$585.44	\$632.27	\$682.85	\$737.47
<i>Commercial</i>						
5/8 inch	\$61.91	\$92.79	\$92.79	\$100.21	\$108.22	\$116.87
1 inch	\$155.50	\$237.69	\$237.68	\$256.69	\$277.22	\$299.39
1.5 inch	\$192.94	\$295.65	\$295.64	\$319.29	\$344.83	\$372.41
2 inch	\$380.13	\$585.45	\$585.44	\$632.27	\$682.85	\$737.47
3 inch	\$604.77	\$933.20	\$933.20	\$1,007.85	\$1,088.47	\$1,175.54
4 inch	\$941.72	\$1,454.84	\$1,454.83	\$1,571.21	\$1,696.90	\$1,832.65
<i>Fire</i>						
6 inch	\$123.74	\$148.36	\$148.35	\$160.21	\$173.02	\$186.86
<b>Commodity Charges</b>						
All Customers (\$/hcf)	\$2.76	\$2.83	\$2.83	\$3.05	\$3.29	\$3.55

LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
WATER RATE STUDY

Water Cost of Service Analysis/Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 45 : EXPENSES DIRECTLY EFFECTED BY CONSUMPTION CHARGES**

Expenses Directly Effected By Consumption Changes	
Expense Name	Commodity Costs
	FY 2024/25
PG&E Power	\$ 349,763
Water Sytem	\$ 126,575
Purchased Water	\$ 120,032
	<b>\$ 596,370</b>

Water Cost of Service Analysis/Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 46 : UPDATED COMMODITY COST BY DROUGHT LEVEL**

Drought Level	Percentage Of Conservation	Total Expected Consumption FY 2024/25 <sup>1</sup>	Base Commodity Cost	Impacted Commodity Costs	Savings	Updated Commodity Cost
	<i>a</i>		<i>b</i>	<i>c</i>	<i>d = (-a) * c</i>	<i>e = b + d</i>
< 10%	0%	158,760 ccf	\$ 449,699	\$ 373,899	\$ -	\$ 449,699
Up to 20%	20%	127,008 ccf	\$ 449,699	\$ 373,899	\$ (74,780)	\$ 374,919
Up to 30%	30%	111,132 ccf	\$ 449,699	\$ 373,899	\$ (112,170)	\$ 337,529
Up to 40%	40%	95,256 ccf	\$ 449,699	\$ 373,899	\$ (149,560)	\$ 300,139
Up to 50%	50%	79,380 ccf	\$ 449,699	\$ 373,899	\$ (186,950)	\$ 262,749
> 50%	60%	63,504 ccf	\$ 449,699	\$ 373,899	\$ (224,340)	\$ 225,359

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

**TABLE 47 : UPDATED UNIFORM RATES BY DROUGHT LEVEL**

Drought Level	Level Of Conservation	Uniform Rate
< 10%	Baseline <sup>1</sup>	\$2.83
Up to 20%	20%	\$2.95
Up to 30%	30%	\$3.37
Up to 40%	40%	\$3.94
Up to 50%	50%	\$4.72
> 50%	60%	\$5.90



Water Cost of Service Analysis/Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 48 : LEVEL 1 - 20% CONSERVATION GOAL**

Rate Structure Type	Water Consumption (hcf/yr.) <sup>1</sup>	Percentage of Water Consumption	Updated Commodity Cost	Capacity Allocation	Target Capacity Rev. Req't from Vol. Charges	Drought Rates
Uniform Volumetric Rate for All Customers	127,008	100.0%	\$ 374,919	100.0%	\$ 374,919	\$2.95

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

**TABLE 49 : LEVEL 2 - 30% CONSERVATION GOAL**

Rate Structure Type	Water Consumption (hcf/yr.) <sup>1</sup>	Percentage of Water Consumption	Updated Commodity Cost	Capacity Allocation	Target Capacity Rev. Req't from Vol. Charges	Drought Rates
Uniform Volumetric Rate for All Customers	111,132	100.0%	\$ 337,529	100.0%	\$ 374,919	\$3.37

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

Water Cost of Service Analysis/Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

**TABLE 50 : LEVEL 3 - 40% CONSERVATION GOAL**

Rate Structure Type	Water Consumption (hcf/yr.) <sup>1</sup>	Percentage of Water Consumption	Updated Commodity Cost	Capacity Allocation	Target Capacity Rev. Req't from Vol. Charges	Drought Rates
Uniform Volumetric Rate for All Customers	95,256	100.0%	\$ 300,139	100.0%	\$ 374,919	\$3.94

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

**TABLE 51 : LEVEL 4 - 50% CONSERVATION GOAL**

Rate Structure Type	Water Consumption (hcf/yr.) <sup>1</sup>	Percentage of Water Consumption	Updated Commodity Cost	Capacity Allocation	Target Capacity Rev. Req't from Vol. Charges	Drought Rates
Uniform Volumetric Rate for All Customers	79,380	100.0%	\$ 262,749	100.0%	\$ 374,919	\$4.72

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx

Water Cost of Service Analysis/Rate Design

*Preliminary Draft Subject to Material Revision, Do Not Cite or Distribute*

TABLE 52 : LEVEL 5 - >50% CONSERVATION GOAL

Rate Structure Type	Water Consumption (hcf/yr.) <sup>1</sup>	Percentage of Water Consumption	Updated Commodity Cost	Capacity Allocation	Target Capacity Rev. Req't from Vol. Charges	Drought Rates
Uniform Volumetric Rate for All Customers	63,504	100.0%	\$ 225,359	100.0%	\$ 374,919	\$5.90

1. Source for total meters and consumption: 2023 Business Water Sales\_NBS.xlsx & Water Sales 2021-22-23\_NBS.xlsx