# BIGHORN DESERT VIEW WATER AGENCY

*Water Rate Study Fiscal Year 2025/26*

*Final Report*

**February 2026**

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# 1. Introduction

## 1.1 Purpose

The Bighorn-Desert View Water Agency (Agency) retained NBS to conduct a comprehensive utility rate study for its water enterprise fund. The Agency 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 Agency's broader objectives in this study include ensuring adequate funding for operating and capital costs, maintaining reasonable reserves, 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 Agency in its continuing effort to maintain transparent communications with the residents and community it serves.

In developing new rates for the Agency's enterprise funds, NBS worked cooperatively with Agency staff and the Agency's Board of Directors (Board) in selecting the appropriate rate alternatives that address the Agency's goals and objectives. Based on input provided by Agency staff, NBS proposes the rates summarized in this report. 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) a financial plan that identifies the net revenue requirements for the utility; (2) a cost -of-service analysis that allocates costs to each customer class, and (3) the rate design, specifically the amount of rate revenue collected from fixed and variable charges. 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*,[1] also referred to as Manual M1.

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


| Compares current sources and uses of funds and determines the revenue needed from rates and projects rate adjustments. | Proportionally allocates revenue requirements to the customer classes in compliance with industry standards and State Law. | Considers the rate structure that best meets the Agency's need to collect rate revenue from various types of customers. |
|---|---|---|

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

Rate studies also address the State Constitution's Prop 218 requirements[2] that rates not exceed the actual cost of providing the service and that they be proportionate to the cost of providing service for all customers. To conduct the study, the Agency provided NBS with the necessary data, including historical, current, and projected revenues and expenditures, number of customer accounts, and water consumption data along with other operational and capital cost information.

The following sections in this report present an overview of the methodologies, assumptions, and data used along with the financial plans and rates developed. More detailed tables and figures documenting the development of the proposed rates are provided in the Technical Appendices.

## FINANCIAL PLAN

Working with Agency staff, NBS developed projections of revenues and expenditures on a cash-basis for the next five (5) years, including the amount of rate revenue needed to maintain reserves at reasonable levels. This is known as the net revenue requirement. The Agency's current rate revenue falls short of the net revenue requirement. As a result, adjustments to the total revenue collected from rates are recommended for the water utility.

## 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 revenue requirements into the following categories:

- Commodity-related, on consumption-based costs
- Capacity-related, or infrastructure-based costs
- Customer-related costs, such as billing, administration, and customer service

## RATE DESIGN ANALYSIS

During the rate design phase of the study, NBS and Agency staff worked together to develop rate alternatives that will meet the Agency's objectives. The objectives are 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. Some of the basic pricing policies, theories, and economic concepts that contribute to a sound rate structure include:

- 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).

[2] California Constitution Article XIII D, Section 6, commonly referred to as Proposition 218 [Prop 218].

- 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 Agency 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 variable or 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.[3] 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.

**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 Agency'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 2024 Coziahr and 2025 Patz court decisions reinforce the requirement that tiered rates are proportionate to costs. Given these decisions, tiered rates would only be appropriate if the agency had multiple water sources that had significantly different costs. With this background, the Agency's current tiered rate structure is proposed to be updated to a uniform rate for each customer class.

[3] *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, pp. 151-152.

## KEY FINANCIAL ASSUMPTIONS

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

**Funding of Capital Projects** – The capital improvement costs will be funded with a combination of grant funds, cash in reserves, and anticipated debt financing. The capital projects listed in the financial plan are from the Agency's capital improvement program. The analysis assumes that capital costs are attributable to existing customers.

**Reserve Targets** – The Agency 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 0.0% per year.
- General cost inflation is set at 2.0% annually.
- Salary cost inflation is set at 2.5% annually.
- Benefit cost inflation is set at 6.0% annually
- Electricity cost inflation is set at 3.7% annually.
- Fuel cost inflation is set at 3.5% annually.

These inflation factors are based on long-term trends; therefore, the Agency 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.

# 2. Water Rate Study

## 2.1 Key Water Rate Study Issues

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

- Generate sufficient revenue to meet anticipated operating and maintenance costs.
- Fund necessary capital improvement projects for the next five years.
- Verify the cost-of-service linkage between the current rate structure and the proposed water rates.
- Maintain adequate reserve levels to ensure continuity in operations.
- Comply with the legal requirements of Prop 218 to ensure the cost of providing service is properly allocated amongst user classifications. This was the basis for eliminating tiered water rates.

NBS developed various water rate alternatives as requested by Agency staff over the course of this study. All rate structure alternatives relied on industry standards and cost-of-service principles. The rate design presented, using fixed and volume-based charges, were calculated based on the net revenue requirements, number of customer accounts, water consumption, system peaking factors, and other relevant data provided by the Agency. Since these system characteristics have changed since the 2020/21 rate study, the adjustments to the various fixed and variable charges result in specific adjustments to these rates in the first year. That is, cost of service adjustments result in changes that are not evenly, across-the-board, the same for all customers. However, after these first-year adjustments, years two through five adjustments to rate revenue are uniformly applied to rates for each customer class.

The following are the basic components included in this analysis:

**Developing Cost Allocations** – The water revenue requirements were "functionalized" into four categories: (1) commodity (or volume-based) costs; (2) fixed capacity costs; (3) customer service costs; and (4) fire protection 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. Variable Charges)** – The revenue requirements for each customer class are collected through a combination of fixed monthly service charges and variable rates. Based on direction from Agency staff, the rates proposed in this report will collect 60% of the rate revenue from the fixed charge and 40% from the variable charges.

## 2.2 Financial Plan

It is important for municipal 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 Agency's water utility, regarding these objectives, is as follows:

**Meeting Net Revenue Requirements:** For FY 2025/26 through FY 2029/30, 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 $1.90 - $2.26 million annually. If no rate adjustments are implemented, the Agency is projected to run an annual deficit by FY 2027/28.

**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 Agency's existing reserves are healthy, and the challenge is to meet future revenue requirements and still maintain adequate reserves. NBS together with Agency staff have chosen to set the following reserve targets:
    - **Operating Reserve** equal to 90 days of operating and maintenance expenses, or approximately $580 thousand in FY 2025/26. An operating reserve can be used as working capital to manage cash throughout the year. NBS considers a 3-month operating reserve to be a standard reserve fund target.
    - **Emergency Contingencies Reserve Fund** equal to an amount set by the Agency Board, or approximately $1 million in FY 2025/26. This reserve is intended for unforeseen circumstances such as a water quality issue or natural disaster.
    - **Capital Rehabilitation & Replacement Reserve** equal to 6% of the net assets, or approximately $1.25 million in FY 2025/26. This reserve is intended to be a cash resource set aside to address long-term capital system replacement and rehabilitation needs. NBS considers a 6% capital reserve target to be at the high end of the typical range, which is 3% to 6% of net assets for many utilities.
    - **Rate Stabilization Fund** equal to 25% of rate revenue, or approximately $525,000 in FY 2025/26. This reserve can be used in the event of a large decline in revenues or increase in expenses. NBS considers this to be a conservative target, however given the reduction consumption in the last five years, reasonable.

**Funding Capital Improvement Projects:** The Agency must fund necessary capital improvements to maintain current service levels. Agency staff identified nearly $14.5 million in expected capital expenditures over the next five years (FY 2025/26 through FY 2029/30), which is an average of $2.9 million in capital expenditures annually. Available grant funds, use of reserves and anticipated debt enable the funding of these capital projects. Ending reserves are projected to be slightly lower than the minimum targets by the end of FY 2029/30.

**Inflation and Growth Projections:** Cost inflation and growth assumptions are necessary to project future revenues and expenses for the study period. Customer growth is not expected. This holds the rate revenue factors stationary (i.e. without customer growth or rate increases, the revenue would remain static), while inflation factors, including the Consumer Price Index,[4] were used in projecting expenses.

**Maintaining Adequate Bond Coverage:** Although the water utility currently has no outstanding debt, this analysis assumes that the Agency will be securing $2 million in a new loan to fund capital projects. However, whether new debt will be needed will depend on the actual delivery of capital projects (i.e., the timing and costs).

**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 | Budget | Projected | | | | |
|---|---|---|---|---|---|---|
| | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
| ***Sources of Water Funds*** | | | | | | |
| Rate Revenue Under Prevailing Rates | $ 1,845,700 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 |
| *Additional Revenue from Rate Increases* [1] | - | - | *46,187* | *93,390* | *141,631* | *190,934* |
| Non-Rate Revenues | 422,500 | 457,400 | 460,400 | 460,400 | 460,400 | 460,400 |
| Interest Earnings | 100,000 | 177,800 | 94,481 | 95,986 | 94,654 | 93,146 |
| **Total Sources of Funds** | **$ 2,368,200** | **$ 2,734,600** | **$ 2,700,468** | **$ 2,749,176** | **$ 2,796,085** | **$ 2,843,880** |
| ***Uses of Water Funds*** | | | | | | |
| Operating Expenses | $ 2,501,258 | $ 2,348,600 | $ 2,418,800 | $ 2,491,300 | $ 2,566,600 | $ 2,644,600 |
| Debt Service | - | - | - | 167,359 | 167,359 | 167,359 |
| Rate-Funded Capital Expenses | - | 182,901 | 206,387 | 157,124 | 136,694 | - |
| **Total Use of Funds** | **$ 2,501,258** | **$ 2,531,501** | **$ 2,625,187** | **$ 2,815,783** | **$ 2,870,653** | **$ 2,811,959** |
| **Surplus (Deficiency) after Rate Increase** | **$ (133,058)** | **$ 203,099** | **$ 75,281** | **$ (66,607)** | **$ (74,567)** | **$ 31,922** |
| ***Projected Annual Rate Revenue Increase*** | ***0.00%*** | ***0.00%*** | ***4.40%*** | ***4.40%*** | ***4.40%*** | ***4.40%*** |
| *Cumulative Rate Increases* | *0.00%* | *0.00%* | *4.40%* | *8.99%* | *13.79%* | *18.80%* |
| **Surplus (Deficiency) before Rate Increase** | **$ (133,058)** | **$ 203,099** | **$ 29,094** | **$ (159,996)** | **$ (216,198)** | **$ (159,012)** |
| **Net Revenue Requirement** [2] | **$ 1,978,758** | **$ 1,896,301** | **$ 2,070,306** | **$ 2,259,396** | **$ 2,315,598** | **$ 2,258,412** |

1. Revenue from rate increases assume an implementation date of March 1, 2026 and each January 1st thereafter.
2. Total Use of Funds less non-rate revenues and interest earnings. This is the annual amount needed from water rates.

**Figure 3** summarizes the projected reserve fund balances and reserve targets for the Agency's unrestricted funds. A detailed version of the proposed 5-year financial plan is included in the Technical Appendix. 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 Agency's funding requirements.

[4] Consumer Price Index for all urban consumers in the Los Angeles/Riverside/Orange County areas. Source: Website: *https://www.bls.gov/cpi/.*

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

| Beginning Reserve Fund Balances and Recommended Reserve Targets | Budget FY 2024/25 | Projected FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|
| **Operating Reserve Fund (Current Customer Deposits)** | | | | | | |
| Ending Balance | $ 616,749 | $ 579,107 | $ 596,416 | $ 494,483 | $ 383,419 | $ 377,635 |
| *Recommended Minimum Target* | *616,749* | *579,107* | *596,416* | *614,293* | *632,860* | *652,093* |
| **Emergency Contingencies Reserve Fund** | | | | | | |
| Ending Balance | $ 1,000,000 | $ 1,033,100 | $ 1,067,296 | $ 1,102,623 | $ 1,139,120 | $ 1,176,825 |
| *Recommended Minimum Target* | *1,000,000* | *1,033,100* | *1,067,296* | *1,102,623* | *1,139,120* | *1,176,825* |
| **Replacement & Refurbishment Reserve Fund** | | | | | | |
| Ending Balance | $ 3,135,795 | $ 2,611,830 | $ 2,635,605 | $ 2,635,605 | $ 2,634,785 | $ 2,312,629 |
| *Recommended Minimum Target* | *733,681* | *1,253,491* | *1,495,407* | *1,542,544* | *1,583,552* | *1,602,882* |
| **Total Ending Balance** | **$ 4,752,543** | **$ 4,224,037** | **$ 4,299,318** | **$ 4,232,711** | **$ 4,157,324** | **$ 3,867,089** |
| ***Total Recommended Minimum Target*** | ***$ 2,350,429*** | ***$ 2,865,698*** | ***$ 3,159,119*** | ***$ 3,259,460*** | ***$ 3,355,533*** | ***$ 3,431,800*** |

## 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 Agency'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 allocated based on the demand for water, 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.
- **Fire protection-related costs** are costs associated with providing sufficient capacity in the system for fire meters and other operations and maintenance costs of providing water to properties for private fire service protection.

The Agency'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 Technical Appendix show how the Agency'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 variable 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.[5]

NBS functionalized the Agency'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 Agency staff agrees with NBS that only minor adjustments are needed and result in a preferred rate alternative that is 60% fixed charges and 40% variable charges. This represents a continuation of the current rates which were designed to collect 60% of revenue from fixed charges and 40% from variable charges.

**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.

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

| Functional Category | *COSA Results* Unadjusted Net Revenue Requirements (2025/26) 68% Fixed / 32% Variable | | *Proposed Rates* Adjusted Net Revenue Requirements (2025/26) 60% Fixed / 40% Variable | |
|---|---|---|---|---|
| Commodity - Related Costs | $ 665,814 | *31.7%* | $ 665,814 | *31.7%* |
| Additional Supply Costs | $ - | *0.0%* | $ - | *0.0%* |
| Capacity - Related Costs (vol. share) | $ - | *0.0%* | $ 173,946 | *8.3%* |
| Total Commodity-Related | $ 665,814 | *31.7%* | $ 839,760 | *40.0%* |
| Capacity - Related Costs | $ 1,225,871 | *58.4%* | $ 1,051,924 | *50.1%* |
| Customer - Related Costs | $ 189,813 | *9.0%* | $ 189,813 | *9.0%* |
| Fire Protection - Related Costs | $ 17,903 | *0.9%* | $ 17,903 | *0.9%* |
| Total Capacity-Related | $ 1,433,586 | *68.3%* | $ 1,259,640 | *60.0%* |
| **Total** | $ 2,099,400 | *100%* | $ 2,099,400 | *100%* |

[5] *Principles of Water Rates, Fees, and Charges,* Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, pp. 6 and 96.

**Figure 5. Allocated Net Revenue Requirements**

| Customer Classes | Classification Components | | | | | | Cost of Service Net Rev. Req'ts | % of COS Net Revenue Req'ts |
|---|---|---|---|---|---|---|---|---|
| | Commodity-Related Costs | Additional Supply Costs | Capacity-Related Costs *Volumetric Share* | Capacity-Related Costs *Fixed Share* | Customer-Related Costs | Fire Protection-Related Costs | | |
| Residential2 | $ 619,100 | $ - | $ 162,263 | $ 981,270 | $ 179,353 | $ - | $ 1,941,986 | *92.5%* |
| Agriculture | 8,280 | - | 2,352 | 14,222 | 3,720 | - | 28,575 | *1.4%* |
| Commercial | 30,603 | - | 7,234 | 43,747 | 1,053 | - | 82,637 | *3.9%* |
| Fire Meter | 166 | - | 163 | 987 | 281 | 17,903 | 19,500 | *0.9%* |
| **Total Net Revenue Requirement** | **$ 658,149** | **$ -** | **$ 172,012** | **$ 1,040,226** | **$ 184,407** | **$ 17,903** | **$ 2,072,697** | **98.7%** |
| ***Total Volumetric Revenue Req't*** | ***$830,161*** | | | | | | ***$2,072,697*** | |
| ***Total Fixed Charge Revenue Req't*** | | | | ***$1,242,536*** | | | | |
| Bulk Water *(Collected from Vol. Rates)* | 7,664 | - | 1,934 | 11,698 | 5,405 | - | 26,703 | *1.3%* |
| **Total Net Revenue Requirement** | **$ 665,814** | **$ -** | **$ 173,946** | **$ 1,051,924** | **$ 189,813** | **$ 17,903** | **$ 2,099,400** | **100.0%** |

## 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 Agency 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 variable rate based on zones.

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. As compared to the previous rate study, consumption has decreased. This results in spreading costs over lower water sales so the unit cost increases even without increases expenses and the revenue requirement.

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

| Customer Class | Annual Volume (hcf) [1] | Percent of Total Volume | *Winter* | *Monthly/ Meter* | *Summer* | Winter | Annual | Summer |
|---|---|---|---|---|---|---|---|---|
| Residential[2] | 176,959 | **93.0%** | 3.3 | 5.4 | 8.0 | 6.5 | 10.8 | 16.1 |
| Agriculture | 2,367 | **1.2%** | 4.0 | 1.1 | 4.1 | 7.9 | 2.1 | 8.2 |
| Bulk Water | 2,191 | **1.2%** | 1.4 | 2.1 | 3.0 | 2.9 | 4.2 | 6.0 |
| Commercial | 8,747 | **4.6%** | 19.3 | 30.4 | 40.6 | 38.7 | 60.7 | 81.3 |
| Fire Meter | 47 | **0.02%** | 0.0 | 0.6 | 3.1 | 0.0 | 1.1 | 6.3 |
| **Total** | **190,311** | **100%** | | | | | | |

1. Consumption is from Jan-Dec 2024. BDVWA bills customers for fixed charges bi-monthly; volumetric rates are $/HCF.
   Source files: *Combined Billing.xlsx*
2. Includes Ag + Residence class (the average demand of this class is less than Residential and, therefore, is combined with Residential).

**Figure 7** shows the peaking factors for each customer class. A "peaking factor" is the relationship between the average use by meter size to its peak use.

**Figure 7. Peaking Factors by Customer Class**

| Customer Class | Average Bi-Monthly Use (hcf) | Peak Bi-Monthly Use (hcf) [1] | Peaking Factor | Max Bi-Month Capacity Factor |
|---|---|---|---|---|
| Residential[2] | 29,493 | 43,759 | **1.48** | **93.3%** |
| Agriculture | 394 | 634 | **1.61** | **1.4%** |
| Bulk Water | 365 | 522 | **1.43** | **1.1%** |
| Commercial | 1,458 | 1,951 | **1.34** | **4.2%** |
| Fire Meter | 8 | 44 | **5.57** | **0.094%** |
| **Total** | **31,718** | **46,909** | | **100.0%** |

1. Based on peak monthly data (peak day data not available).
2. Includes Ag + Residence class.

Both operating costs and capital infrastructure costs incurred to accommodate peak system capacity events are generally allocated to each meter size according to their contribution to peak capacity events. These peaking 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 [1] | Percent of Total |
|---|---|---|
| Residential[2] | 2,555 | **94.5%** |
| Agriculture | 53 | **2.0%** |
| Bulk Water | 77 | **2.8%** |
| Commercial | 15 | **0.6%** |
| Commercial + Backflow | - | **0.0%** |
| Fire Meter | 4 | **0.1%** |
| Institutional - Fire Dept. | - | **0.0%** |
| Institutional + Backflow | - | **0.0%** |
| **Total** | **2,704** | **100.0%** |

1. Distinct accounts from 2024. Source files: Combined Billing.xlsx
2. Includes Ag + Residence class.

## 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 different fixed charge versus variable charge ratios in the rate designs with Agency staff and the Board over the course of this study; 60%/40% (preferred), 65%/35%, 55%/45% and 75%/25%. Ultimately, Agency staff selected the 60%/40% rate alternative, as it is closest to the actual cost of service based on

NBS' analysis. Also, because of the difficulty meeting Prop 218 legal requirements of demonstrating the cost basis for tiered rates given the Agency's water supply costs, the preferred rate structure proposes a uniform tier for all customers rather than the existing two-tiers. The following section describes 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. Three components comprise the fixed meter charges: (1) the capacity component, (2) the customer component, and (3) the fire protection 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. A user class with higher-peaking ratio is allocated a proportionately higher share of the capacity-related costs compared to customer classes with lower peaking ratios. The customer component includes those costs related to reading and maintaining meters, customer billing and collection, and other customer service-related costs. The fire protection component recovers costs associated with providing sufficient capacity in the system for fire meters and other operations and maintenance costs of providing water to properties for private fire service protection

Fixed charges also vary based on meter sizes because larger meters have higher capacity requirements and reflect their potential to use more of the system's capacity.[6] The potential capacity demands (peaking) is proportional to the maximum hydraulic flow through each meter size based on the hydraulic capacity ratios established by AWWA.[7] The AWWA capacity ratios used for this report are shown in Figure 9.

**Figure 9. Hydraulic Capacity Factors**

| Meter Size | Standard Meters [1] | | Fire Service Meters [2] | |
|---|---|---|---|---|
| | Meter Capacity (gpm) | Equivalency to 1 inch | Meter Capacity (gpm) | Equivalency to 1 inch |
| | *Displacement Meters* | | *Displacement Meters* | |
| 3/4 inch | 30 | 1.00 | 30 | 1.00 |
| 1 inch | 50 | 1.00 | 50 | 1.00 |
| 1.5 inch | 100 | 2.00 | 100 | 2.00 |
| 2 inch | 160 | 3.20 | 160 | 3.20 |
| | *Compound Class I Meters* | | *Fire Service Type II* | |
| 3 inch | 320 | 6.40 | 350 | 7.00 |
| 4 inch | 500 | 10.00 | 700 | 14.00 |
| 6 inch | 1,000 | 20.00 | 1,600 | 32.00 |
| 8 inch | 1,600 | 32.00 | 2,800 | 56.00 |

1. Meter flow rates are from *AWWA M-1* Table B-1.
2. Fire Service meter flow rates are from AWWA M-6 Table 5-3.

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

[6] System capacity is the system's ability to supply water to all delivery points at the time when demanded.
[7] *Principles of Water Rates, Fees and Charges*, Manual of Water Supply Practices, Manual M1, AWWA, 7th Edition, 2017, p. 386. *Water Meters – Selection, Installation, Testing and Maintenance*, Manual M6, AWWA, 5th Edition, 2012, pp. 63-65.

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**

| Number of Meters by Class and Size [1] | 3/4 inch | 1 inch | 1 1/2 inch | 2 inch | 3 inch | 4 inch | 6 inch | Total |
|---|---|---|---|---|---|---|---|---|
| Residential[2] | 2,486 | 69 | - | - | - | - | - | 2,555 |
| Agriculture | 53 | - | - | - | - | - | - | 53 |
| Commercial | 9 | 5 | - | 1 | - | - | - | 15 |
| **Total Meters/Accounts** | **2,548** | **74** | **-** | **1** | **-** | **-** | **-** | **2,623** |
| *Hydraulic Capacity Factor* [3] | *1.00* | *1.00* | *2.00* | *3.20* | *6.40* | *10.00* | *20.00* | |
| **Total Equivalent Meters** | **2,548** | **74** | **-** | **3.20** | **-** | **-** | **-** | **2,625** |

1. Meter Count is distinct accounts from Jan-Dec 2024. BHDVWA charges monthly rates, but bills bi-monthly.
   Source files: *Combined Billing.xlsx*
2. Includes Ag + Residence class (the average demand of this class is less than Residential and, therefore, is combined with Residential).
3. Source file: *AWWA Manual M1, "Principles of Water Rates, Fees, and Charges",* Table B-1.

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. As previously mentioned, the customer service charge is calculated by dividing the customer service-related costs by the 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 Meter Charges

| Number of Meters by Class and Size [1] | 3/4 inch | 1 inch | 1 1/2 inch | 2 inch | 3 inch | 4 inch | 6 inch | Total |
|---|---|---|---|---|---|---|---|---|
| Residential[2] | 2,486 | 69 | - | - | - | - | - | 2,555 |
| Agriculture | 53 | - | - | - | - | - | - | 53 |
| Commercial | 9 | 5 | - | 1 | - | - | - | 15 |
| **Total Meters/Accounts** | **2,548** | **74** | **-** | **1** | **-** | **-** | **-** | **2,623** |
| *Hydraulic Capacity Factor* [3] | *1.00* | *1.00* | *2.00* | *3.20* | *6.40* | *10.00* | *20.00* | |
| **Total Equivalent Meters** | **2,548** | **74** | **-** | **3.20** | **-** | **-** | **-** | **2,625** |
| **Bi-Monthly Fixed Service Charges** | | | | | | | | |
| Customer Costs ($/Acct/2 months) [4] | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | |
| Capacity Costs ($/Acct/2 months) [5] | $66.04 | $66.04 | $132.08 | $211.33 | $422.66 | $660.41 | $1,320.82 | |
| **Total Bi-Monthly Meter Charge** | **$77.76** | **$77.76** | **$143.80** | **$223.05** | **$434.38** | **$672.13** | **$1,332.54** | |
| **Annual Fixed Costs Allocated to Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Costs | $ 184,407 | | | | | | | |
| Capacity Costs | 1,040,226 | | | | | | | |
| **Total Fixed Meter Costs** | $ 1,224,633 | | | | | | | |
| **Annual Revenue from Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Charges | $ 179,135 | $ 5,202 | $ - | $ 70 | $ - | $ - | $ - | **$ 184,407** |
| Capacity Charges | 1,009,636 | 29,322 | - | 1,268 | - | - | - | **$ 1,040,226** |
| **Total Revenue from Bi-Monthly Meter Charges** | **$ 1,188,770** | **$ 34,525** | **$ -** | **$ 1,338** | **$ -** | **$ -** | **$ -** | **$ 1,224,633** |

1. Meter Count is distinct accounts from Jan-Dec 2024. BHDVWA charges monthly rates, but bills bi-monthly.
Source files: *Combined Billing.xlsx*
2. Includes Ag + Residence class (the average demand of this class is less than Residential and, therefore, is combined with Residential).
3. Source file: *AWWA Manual M1, "Principles of Water Rates, Fees, and Charges"*, Table B-1.
4. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
5. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

### *Variable Rates*

Currently, the Agency uses a tiered rate structure for residential customers; however, the proposed rates are based on a uniform, or single tier, variable rate.

**Figure 12** shows the calculation of the uniform rate per unit of water for each customer class.

## Figure 12. Calculation of Commodity Charges

| Customer Classes | Number of Meters [1] | Water Consumption (hcf/yr.) [1] | Commodity Assigned Costs | Capacity Assigned Costs | Additional Supply Costs | Fixed Costs to Recover from Vol. Charges (A) | Target Rev. Req't from Vol. Charges | Uniform Volumetric Rates ($/hcf) |
|---|---|---|---|---|---|---|---|---|
| Residential | 2,555 | 176,959 | $ 619,100 | $ 162,263 | $ - | | $ 781,363 | |
| Non-Residential | | | | | | | | |
| Agriculture | 53 | 2,367 | 8,280 | 2,352 | - | | $10,632 | |
| Commercial | 15 | 8,747 | 30,603 | 7,234 | - | | $37,837 | |
| Fire Meter | 4 | 47 | 166 | 163 | - | | $329 | |
| Total (Excluding Bulk) | 2,627 | 188,120 | 658,149 | 172,012 | - | | $ 830,161 | **$4.41** |
| Bulk Water (Collected from Vol. Rates) | 77 | 2,191 | 7,664 | 1,934 | - | 17,104 | 26,703 | **$12.19** |
| **Total** | **2,704** | **190,311** | **$ 665,814** | **$ 173,946** | **$ -** | **$ 17,104** | **$ 856,864** | |

1. Consumption by customer class for January 2024-December 2024. Source files: Combined Billing.xlsx
2. Additional water supply costs for Residential and Agriculture customers shown in Table 29.

## 2.6 Proposed Water Rates

The Agency's previous rate study was completed almost five years ago in 2021. Since then, the underlying cost factors (e.g., consumption by class, number of meters, peaking 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. Because projected

water sales are lower than the water sales that were anticipated in the previous study, variable rates increased as costs are spread over less water sales.

**Figure 13** provides a comparison of the current and proposed water rates for FY 2025/26 through 2029/30 for each customer class and meter size. Projected rates for each fiscal year[8] reflect adjustments based on the cost-of-service analysis, the 60% fixed/40% 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 are documented in the Technical Appendix.

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

| Water Rate Schedule | Current Rates | Proposed 1/1/2026 | 1/1/2027 | 1/1/2028 | 1/1/2029 | 1/1/2030 |
|---|---|---|---|---|---|---|
| ***Fixed Meter Charges*** | | | | | | |
| Bi-Monthly Fixed Service Charges: | | | | | | |
| 3/4 inch | $72.27 | $77.76 | $81.18 | $84.75 | $88.48 | $92.37 |
| 1 inch | $72.27 | $77.76 | $81.18 | $84.75 | $88.48 | $92.37 |
| 1.5 inch | $130.27 | $143.80 | $150.13 | $156.74 | $163.64 | $170.84 |
| 2 inch | $199.88 | $223.05 | $232.86 | $243.11 | $253.81 | $264.98 |
| 3 inch | $385.51 | $434.38 | $453.49 | $473.44 | $494.27 | $516.02 |
| 4 inch | $594.32 | $672.13 | $701.70 | $732.57 | $764.80 | $798.45 |
| 6 inch | $1,174.38 | $1,332.54 | $1,391.17 | $1,452.38 | $1,516.28 | $1,583.00 |
| Bi-Monthly Fire Service Charges: | | | | | | |
| 3/4 inch | $35.81 | $59.40 | $62.01 | $64.74 | $67.59 | $70.56 |
| 1 inch | $35.81 | $59.40 | $62.01 | $64.74 | $67.59 | $70.56 |
| 2 inch | $83.23 | $164.34 | $171.58 | $179.13 | $187.01 | $195.24 |
| 3 inch | $165.12 | $345.61 | $360.82 | $376.70 | $393.27 | $410.57 |
| 4 inch | $315.97 | $679.52 | $709.42 | $740.63 | $773.22 | $807.24 |
| 6 inch | $703.86 | $1,538.15 | $1,605.83 | $1,676.49 | $1,750.26 | $1,827.27 |
| 8 inch | $1,221.05 | $2,682.99 | $2,801.04 | $2,924.29 | $3,052.96 | $3,187.29 |
| ***Commodity Charges*** | | | | | | |
| **Rate per hcf of Water Consumed:** | | | | | | |
| Tiered Rate - Residential Customers[1] | | | | | | |
| Proposed Break | | | | | | |
| Tier 1 0-25 hcf | $3.55 | $4.41 | $4.61 | $4.81 | $5.02 | $5.24 |
| Tier 2 26+ hcf | $5.40 | NA | NA | NA | NA | NA |
| Commercial, Ag, Institutional, Fire & Other | $4.18 | $4.41 | $4.61 | $4.81 | $5.02 | $5.24 |
| Bulk Meters | $9.16 | $12.19 | $12.73 | $13.29 | $13.87 | $14.48 |

1. Includes Ag + Residence class.

## 2.7 Comparison of Current and Proposed Water Bills

**Figure 14** and **Figure 15** compare a range of monthly water bills under the current and proposed water rates for residential customers. The monthly bills are based on typical meter sizes and highlight the average consumption levels for a residential customer.

[8] All rate adjustments are scheduled to be effective on January 1, 2026.

**Figure 14. Monthly Water Bill Comparison for Residential Customers**

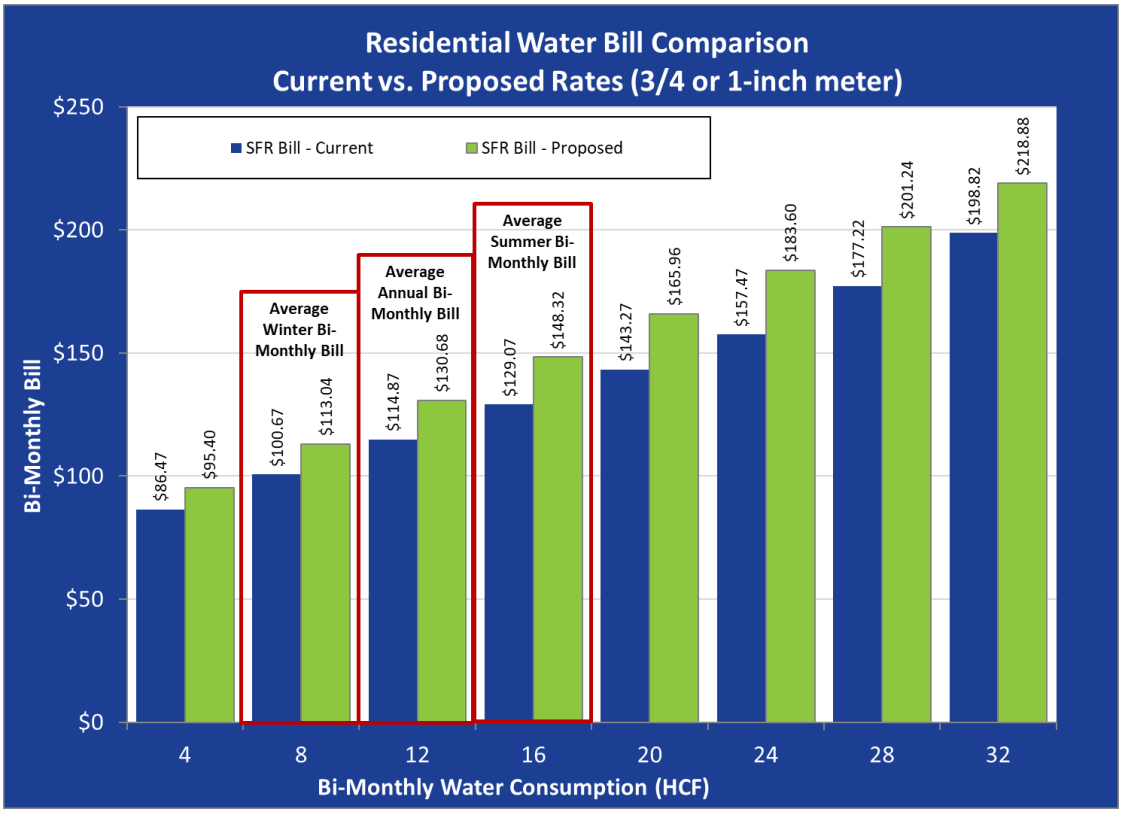
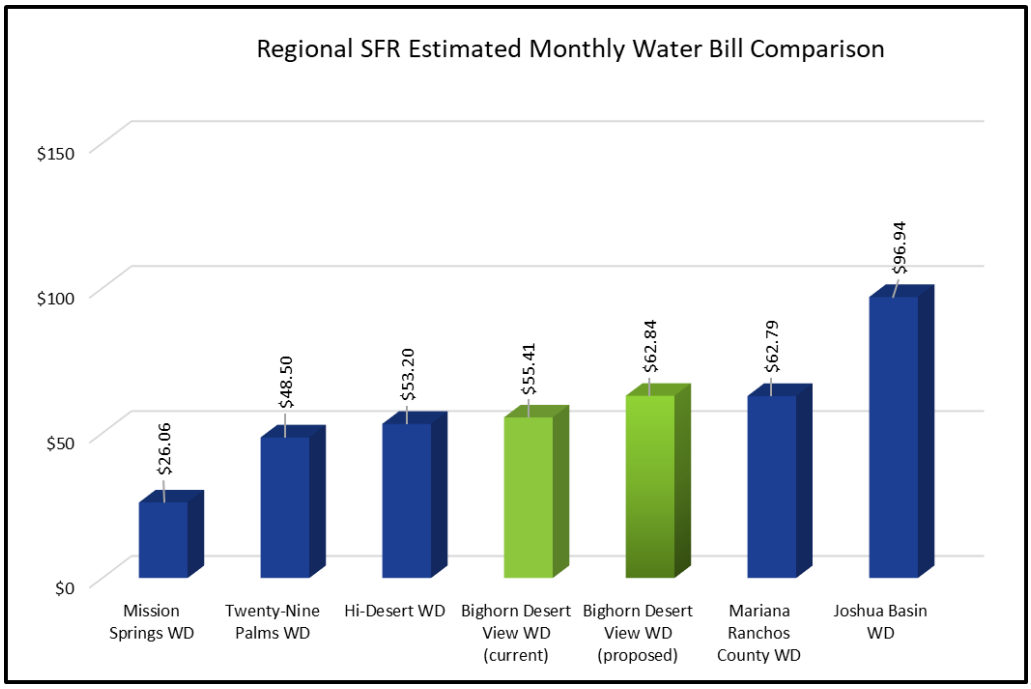



**Figure 15** presents a comparison of residential water rates for similar communities.

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



# 3. Recommendations and Next Steps

## 3.1 Consultant Recommendations

NBS recommends the Agency take the following actions:

- **Approve and Accept this Study:** NBS recommends the 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 Agency should proceed with implementing the 5-year schedule of proposed rates and rate increases previously shown in Figure 13. This will help ensure the continued financial health of Agency'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 Appendix provides 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 Agency's budgets, capital improvement costs, customer accounts and consumption, and information from Agency 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 Appendix

This Appendix contains:

- Appendix A: Water Rate Study Tables and Figures

# Appendix A. Water Rate Study Tables and Figures

**TABLE 1 : FINANCIAL PLAN AND SUMMARY OF REVENUE REQUIREMENTS**

| RATE REVENUE REQUIREMENTS SUMMARY [1] | Budget | Projected | | | | |
|---|---|---|---|---|---|---|
| | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
| ***Sources of Water Funds*** | | | | | | |
| *Rate Revenue:* | | | | | | |
| Water Sales Revenue Under Current Rates | $ 1,845,700 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 | $ 2,099,400 |
| *Revenue from Rate Increases [2]* | - | - | *46,187* | *93,390* | *141,631* | *190,934* |
| Subtotal: Rate Revenue After Rate Increases | 1,845,700 | 2,099,400 | 2,145,587 | 2,192,790 | 2,241,031 | 2,290,334 |
| *Non-Rate Revenue:* | | | | | | |
| Other Operating Revenue | $ 78,100 | $ 67,700 | $ 70,700 | $ 70,700 | $ 70,700 | $ 70,700 |
| Non-Operating Revenue | 344,400 | 389,700 | 389,700 | 389,700 | 389,700 | 389,700 |
| Interest Income [3] | 100,000 | 177,800 | 94,481 | 95,986 | 94,654 | 93,146 |
| Subtotal: Non-Rate Revenue | 522,500 | 635,200 | 554,881 | 556,386 | 555,054 | 553,546 |
| **Total Sources of Funds** | **$ 2,368,200** | **$ 2,734,600** | **$ 2,700,468** | **$ 2,749,176** | **$ 2,796,085** | **$ 2,843,880** |
| ***Uses of Water Funds*** | | | | | | |
| *Operating Expenses [4]* | | | | | | |
| Operating Administrative Expenses | $ 1,318,258 | $ 1,161,300 | $ 1,203,300 | $ 1,247,000 | $ 1,292,800 | $ 1,340,600 |
| Non-Operating Administrative Expenses | 33,200 | 33,200 | 33,900 | 34,600 | 35,300 | 36,000 |
| Operations Expense | 1,099,800 | 1,084,100 | 1,111,600 | 1,139,700 | 1,168,500 | 1,198,000 |
| Director Expense | 50,000 | 70,000 | 70,000 | 70,000 | 70,000 | 70,000 |
| Administration Projects | - | - | - | - | - | - |
| Subtotal: Operating Expenses | $ 2,501,258 | $ 2,348,600 | $ 2,418,800 | $ 2,491,300 | $ 2,566,600 | $ 2,644,600 |
| *Other Expenditures:* | | | | | | |
| Existing Debt Service | $ - | $ - | $ - | $ - | $ - | $ - |
| New Debt Service | - | - | - | 167,359 | 167,359 | 167,359 |
| Rate-Funded Capital Expenses | - | 182,901 | 206,387 | 157,124 | 136,694 | - |
| Subtotal: Other Expenditures | $ - | $ 182,901 | $ 206,387 | $ 324,483 | $ 304,053 | $ 167,359 |
| **Total Uses of Water Funds** | **$ 2,501,258** | **$ 2,531,501** | **$ 2,625,187** | **$ 2,815,783** | **$ 2,870,653** | **$ 2,811,959** |
| **Annual Surplus/(Deficit)** | **$ (133,058)** | **$ 203,099** | **$ 75,281** | **$ (66,607)** | **$ (74,567)** | **$ 31,922** |
| **Net Revenue Req't.** *(Total Uses less Non-Rate Revenue)* | **$ 1,978,758** | **$ 1,896,301** | **$ 2,070,306** | **$ 2,259,396** | **$ 2,315,598** | **$ 2,258,412** |
| ***Projected Annual Rate Revenue Increase*** | ***0.00%*** | ***0.00%*** | ***4.40%*** | ***4.40%*** | ***4.40%*** | ***4.40%*** |
| *Cumulative Increase from Annual Revenue Increases* | *0.00%* | *0.00%* | *4.40%* | *8.99%* | *13.79%* | *18.80%* |
| *Debt Coverage After Rate Increase* | *N/A* | *N/A* | *N/A* | *13.10* | *13.39* | *13.69* |

| 3 | *<-- Select Financial Plan Scenario Here* | | | | | | |
|---|---|---|---|---|---|---|---|
| **Financial Plan Alternatives** | | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
| 1 | Alternative 1 - 4% Inflationary Rate Increases | *0.00%* | *4.00%* | *4.00%* | *4.00%* | *4.00%* | *4.00%* |
| 2 | Alternative 2 - 5% Inflationary Rate Increases | *0.00%* | *5.00%* | *5.00%* | *5.00%* | *5.00%* | *5.00%* |
| 3 | Alternative 3 - Custom Rate Increases | *0.00%* | *0.00%* | *4.40%* | *4.40%* | *4.40%* | *4.40%* |
| 4 | Alternative 4 - No Rate Increases | *0.00%* | *4.40%* | *6.00%* | *6.00%* | *6.00%* | *6.00%* |

1. Revenue and expenses for FY 2024-25 are from source file: 1-4. GY 2024.25 Budget
2. Rate increases assume an implementation date of March 1, 2026 and then January 1st thereafter.
3. Interest earnings for FY 2024-25 is from Agency budget. For all other years, it is calculated based on agency input.
4. Revenue and expenses for FY 2024-25 are from source file: 1-4. GY 2024.25 Budget

**TABLE 2 : RESERVE FUND SUMMARY**

| SUMMARY OF CASH ACTIVITY | Budget | Projected | | | | |
|---|---|---|---|---|---|---|
| UN-RESTRICTED RESERVES | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
| **Total Beginning Cash** [1, 2, 3] | $ 5,385,601 | | | | | |
| ***Operating Reserve Fund (Current Customer Deposits)*** | | | | | | |
| Beginning Reserve Balance [1] | $ 5,385,601 | $ 616,749 | $ 579,107 | $ 596,416 | $ 494,483 | $ 383,419 |
| Plus: Net Cash Flow (After Rate Increases) | (133,058) | 203,099 | 75,281 | (66,607) | (74,567) | 31,922 |
| Plus: Transfer of Debt Reserve Surplus | - | - | - | - | - | - |
| Less: Transfer Out to Emergency Contingencies Fund | (1,000,000) | (33,100) | (34,196) | (35,327) | (36,497) | (37,705) |
| Less: Transfer Out to Rate Stabilization | (500,000) | | | | | |
| Less: Transfer Out to Capital Replacement Reserve | (3,135,795) | (207,641) | (23,775) | - | - | - |
| ***Ending Operating Reserve Balance*** | ***$ 616,749*** | ***$ 579,107*** | ***$ 596,416*** | ***$ 494,483*** | ***$ 383,419*** | ***$ 377,635*** |
| *Target Ending Balance (90-days of O&M)* [2] | *$ 616,749* | *$ 579,107* | *$ 596,416* | *$ 614,293* | *$ 632,860* | *$ 652,093* |
| ***Emergency Contingencies Reserve Fund*** | | | | | | |
| Beginning Reserve Balance | $ - | $ 1,000,000 | $ 1,033,100 | $ 1,067,296 | $ 1,102,623 | $ 1,139,120 |
| Plus: Transfer of Operating Reserve Surplus | 1,000,000 | 33,100 | 34,196 | 35,327 | 36,497 | 37,705 |
| Less: Use of Reserves for Capital Projects | - | - | - | - | - | - |
| ***Ending Emergencies Contingencies Reserve Balance*** | ***$ 1,000,000*** | ***$ 1,033,100*** | ***$ 1,067,296*** | ***$ 1,102,623*** | ***$ 1,139,120*** | ***$ 1,176,825*** |
| *Target Ending Balance Set by Board ($200,000 minimum)* [3] | *$ 1,000,000* | *$ 1,033,100* | *$ 1,067,296* | *$ 1,102,623* | *$ 1,139,120* | *$ 1,176,825* |
| ***Capital R & R Reserve Fund*** | | | | | | |
| Beginning Reserve Balance | $ - | $ 3,135,795 | $ 2,611,830 | $ 2,635,605 | $ 2,635,605 | $ 2,634,785 |
| Plus: Transfer of Operating Reserve Surplus | 3,135,795 | 207,641 | 23,775 | - | - | - |
| Less: Use of Reserves for Capital Projects | - | (731,605) | - | - | (820) | (322,156) |
| ***Ending Capital Rehab & Replacement Reserve Balance*** | ***$ 3,135,795*** | ***$ 2,611,830*** | ***$ 2,635,605*** | ***$ 2,635,605*** | ***$ 2,634,785*** | ***$ 2,312,629*** |
| *Target Ending Balance* [4] | *$ 733,681* | *$ 1,253,491* | *$ 1,495,407* | *$ 1,542,544* | *$ 1,583,552* | *$ 1,602,882* |
| ***Rate Stabilization Fund*** | | | | | | |
| Beginning Reserve Balance | $ - | *$ 500,000* | *$ 500,000* | *$ 500,000* | *$ 500,000* | *$ 500,000* |
| Plus: Transfer of Operating Reserve Surplus | $ 500,000 | | | | | |
| Less: Transfer Out to Operating Reserve | $ - | | | | | |
| ***Ending Rate Stabilization Reserve Balance*** | ***$ 500,000*** | ***$ 500,000*** | ***$ 500,000*** | ***$ 500,000*** | ***$ 500,000*** | ***$ 500,000*** |
| *Target Ending Balance* [5] | *$ 461,425* | *$ 524,850* | *$ 536,397* | *$ 548,197* | *$ 560,258* | *$ 572,583* |
| ***Ending Balance*** | ***$ 5,252,543*** | ***$ 4,724,037*** | ***$ 4,799,318*** | ***$ 4,732,711*** | ***$ 4,657,324*** | ***$ 4,367,089*** |
| ***Minimum Target Ending Balance*** | ***$ 2,811,854*** | ***$ 3,390,548*** | ***$ 3,695,516*** | ***$ 3,807,658*** | ***$ 3,915,790*** | ***$ 4,004,383*** |
| ***Ending Surplus/(Deficit) Compared to Reserve Targets*** | | ***$ 1,333,489*** | ***$ 1,103,802*** | ***$ 925,053*** | ***$ 741,534*** | ***$ 362,706*** |
| ***Restricted Reserves:*** | ***$ 2,440,689*** | | | | | |
| ***Bond Debt Service Reserve Fund*** | | | | | | |
| Beginning Reserve Balance | $ - | $ - | $ - | $ - | $ - | $ - |
| Plus: Reserve Funding from New Debt Obligations | - | - | - | - | - | - |
| Less: Transfer of Surplus to Operating Reserve | - | - | - | - | - | - |
| ***Ending Debt Reserve Balance*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** |
| *Target Ending Balance* | *$ -* | *$ -* | *$ -* | *$ -* | *$ -* | *$ -* |
| ***Connection Fee Reserve*** | | | | | | |
| Beginning Reserve Balance | $ - | $ 17,900 | $ 36,158 | $ 54,781 | $ 73,777 | $ 93,152 |
| Plus: Capital Impact Fee Revenue | 17,900 | 17,900 | 17,900 | 17,900 | 17,900 | 17,900 |
| Plus: Interest Revenue | - | 358 | 723 | 1,096 | 1,476 | 1,863 |
| Less: Use of Reserves for Capital Projects | - | - | - | - | - | - |
| ***Ending Connection Fee Fund Balance*** | ***$ 17,900*** | ***$ 36,158*** | ***$ 54,781*** | ***$ 73,777*** | ***$ 93,152*** | ***$ 112,915*** |
| *Annual Interest Earnings Rate* [6] | *2.00%* | *2.00%* | *2.00%* | *2.00%* | *2.00%* | *2.00%* |

1. Beginning cash from Audited Financial Statements for 2023/24 source files: 2024 CAFR BDVWA Final.*pdf, page 32, Cash and Cash Equivalents.*
2. Operating Reserve Target set to 180 days (or 6 months) of O&M expenses. Industry standard is 3 to 6 months.
3. Reserve target set by Agency Board. Source file: 16R-11 Establishing Criteria for Agency Financial Reserves.pdf
4. Replacement & Refurbishment Reserve target set to 6% of total assets.
5. Rate Stabilization Target is 25% of Rate Revenue
6. Interest earnings for FY 2024/25 are per the City's budget projections. For all future years, interest earnings are calculated here based on district provided rate and projected cash balances

**CHART 1**

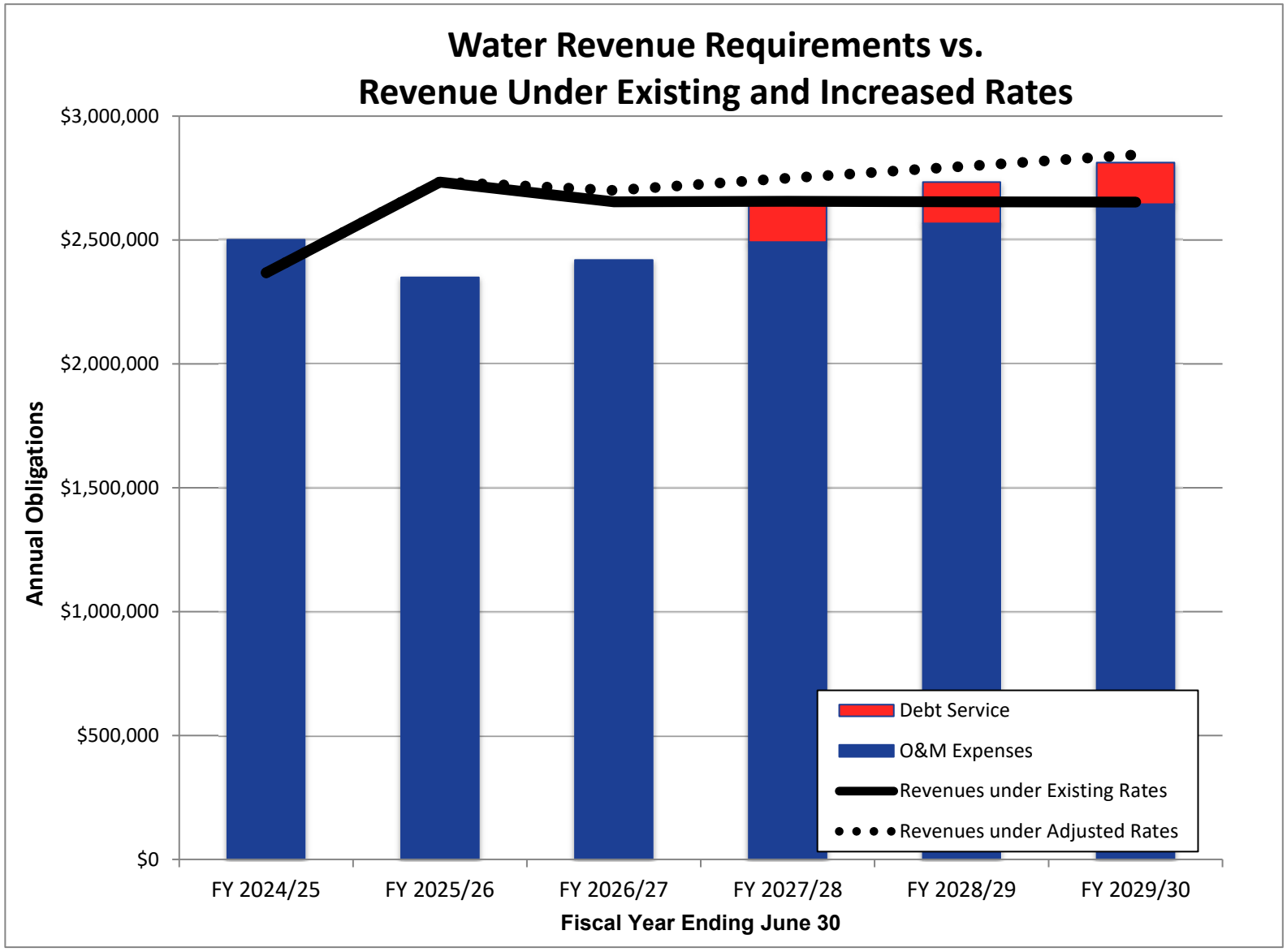
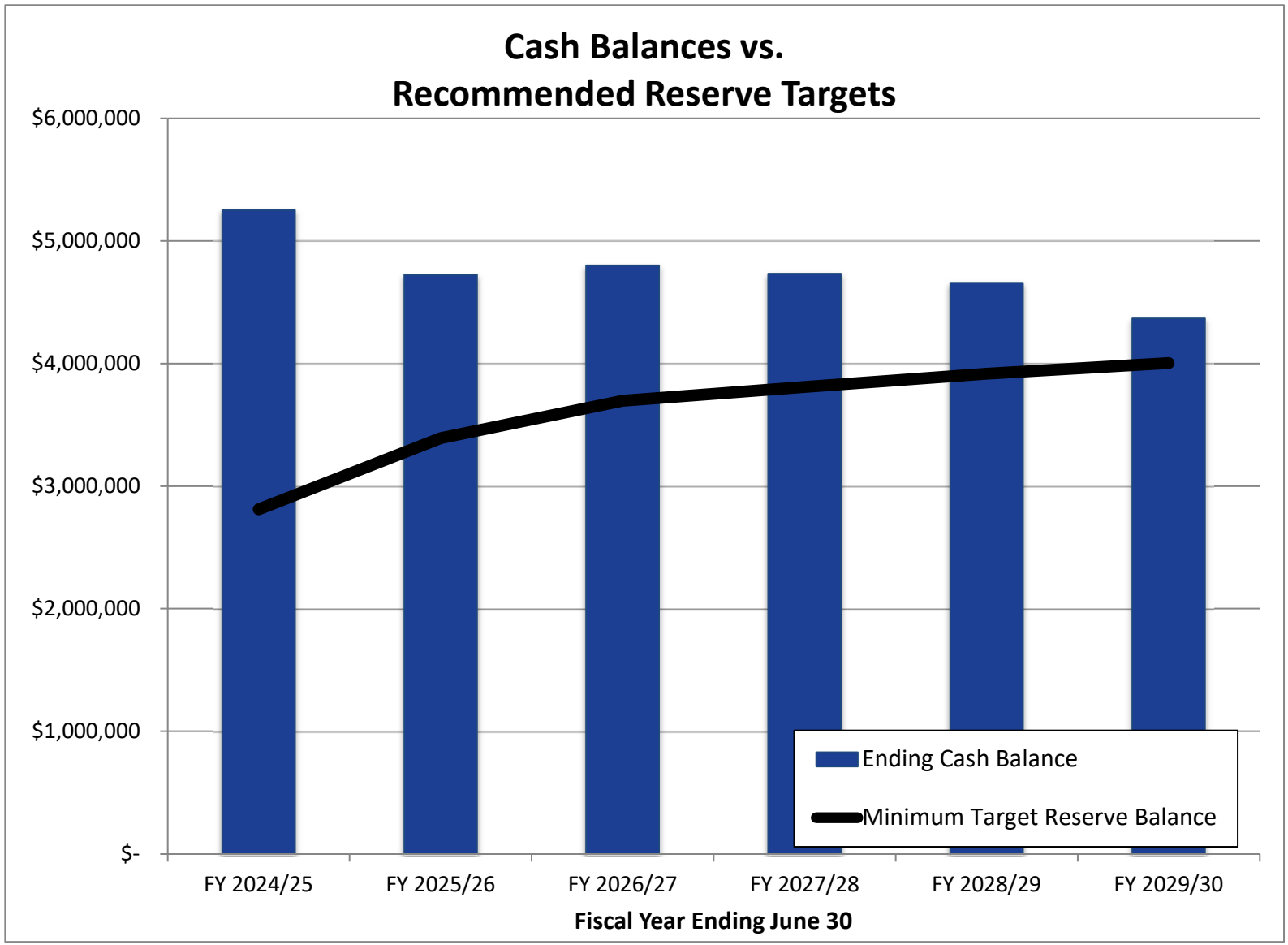

Water Revenue Requirements vs.
Revenue Under Existing and Increased Rates
$3,000,000
$2,500,000
$2,000,000
$1,500,000
$1,000,000
$500,000
$0
Annual Obligations
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28
FY 2028/29
FY 2029/30
Fiscal Year Ending June 30
Debt Service
O&M Expenses
Revenues under Existing Rates
Revenues under Adjusted Rates

**CHART 2**


Cash Balances vs.
Recommended Reserve Targets
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$-
FY 2024/25
FY 2025/26
FY 2026/27
FY 2027/28
FY 2028/29
FY 2029/30
Fiscal Year Ending June 30
Ending Cash Balance
Minimum Target Reserve Balance

**BIGHORN DESERT WATER AGENCY**
**WATER RATE STUDY**
**Operating Revenue and Expenses**

**EXHIBIT 1**

| TABLE 3 : REVENUE FORECAST [1] | | Budget | 5-Year Projected Rate Period | | | | |
|---|---|---|---|---|---|---|---|
| DESCRIPTION | Inflation Basis | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
| **Operating Revenue** | | | | | | | |
| Metered Water Sales - Tier 1 | 1 | $ 505,200 | $ 580,500 | $ 580,500 | $ 580,500 | $ 580,500 | $ 580,500 |
| Metered Water Sales - Tier 2 | 1 | 224,400 | 312,100 | 312,100 | 312,100 | 312,100 | 312,100 |
| Basic Service Charge | 1 | 1,116,100 | 1,206,800 | 1,206,800 | 1,206,800 | 1,206,800 | 1,206,800 |
| Other Operating Income | 1 | 77,800 | 66,900 | 66,900 | 66,900 | 66,900 | 66,900 |
| Interest Income Unrestricted | See FP | 100,000 | 177,800 | | | | |
| Bad Debt Expense | 7 | (1,500) | (1,500) | (1,500) | (1,500) | (1,500) | (1,500) |
| Bad Debt Expense - Uncollected Liens | 7 | (1,500) | (1,500) | (1,500) | (1,500) | (1,500) | (1,500) |
| Water Sales | 1 | 2,500 | 3,800 | 3,800 | 3,800 | 3,800 | 3,800 |
| Subtotal | | $ 2,023,000 | $ 2,344,900 | $ 2,167,100 | $ 2,167,100 | $ 2,167,100 | $ 2,167,100 |
| **Non-Operating Revenue** | | | | | | | |
| Stand-By Income W-1 | 1 | $ 63,900 | $ 63,900 | $ 63,900 | $ 63,900 | $ 63,900 | $ 63,900 |
| General Tax Income (portion of 1%) | 1 | 254,400 | 299,700 | 299,700 | 299,700 | 299,700 | 299,700 |
| Other Revenue | 1 | 17,200 | 21,300 | 21,300 | 21,300 | 21,300 | 21,300 |
| Pacific Western Earning Credits | 1 | 8,900 | 4,800 | 4,800 | 4,800 | 4,800 | 4,800 |
| Subtotal | | $ 344,400 | $ 389,700 | $ 389,700 | $ 389,700 | $ 389,700 | $ 389,700 |
| **Non-Operating Revenue - New Connections** | | | | | | | |
| Meter Connect Fees (SL Install Fees) | 1 | $ 2,700 | $ 2,700 | $ 2,700 | $ 2,700 | $ 2,700 | $ 2,700 |
| Basic Facilities Charge (Buy-In) | 1 | 15,200 | 15,200 | 15,200 | 15,200 | 15,200 | 15,200 |
| Subtotal | | $ 17,900 | $ 17,900 | $ 17,900 | $ 17,900 | $ 17,900 | $ 17,900 |
| **TOTAL: REVENUE** | | **$ 2,385,300** | **$ 2,752,500** | **$ 2,574,700** | **$ 2,574,700** | **$ 2,574,700** | **$ 2,574,700** |

| TABLE 4 : REVENUE SUMMARY | | Budget | 5-Year Projected Rate Period | | | | |
|---|---|---|---|---|---|---|---|
| **RATE REVENUE:** | | | | | | | |
| Metered Water Sales - Tier 1 | | $ 505,200 | $ 580,500 | $ 580,500 | $ 580,500 | $ 580,500 | $ 580,500 |
| Metered Water Sales - Tier 2 | | 224,400 | 312,100 | 312,100 | 312,100 | 312,100 | 312,100 |
| Basic Service Charge | | 1,116,100 | 1,206,800 | 1,206,800 | 1,206,800 | 1,206,800 | 1,206,800 |
| **OTHER REVENUE:** | | | | | | | |
| Other Operating Revenue | | $ 78,100 | $ 67,700 | $ 70,700 | $ 70,700 | $ 70,700 | $ 70,700 |
| Interest Income | | 100,000 | 177,800 | - | - | - | - |
| Non-Operating Revenue | | 344,400 | 389,700 | 389,700 | 389,700 | 389,700 | 389,700 |
| Non-Operating Revenue - New Connections | | 17,900 | 17,900 | 17,900 | 17,900 | 17,900 | 17,900 |
| **TOTAL: REVENUE** | | **$ 2,386,100** | **$ 2,752,500** | **$ 2,577,700** | **$ 2,577,700** | **$ 2,577,700** | **$ 2,577,700** |

**BIGHORN DESERT WATER AGENCY**
**WATER RATE STUDY**
**Operating Revenue and Expenses**

**EXHIBIT 1**

**TABLE 5 : OPERATING EXPENSE FORECAST** [1]

| DESCRIPTION | Inflation Basis | Budget FY 2024/25 | 5-Year Projected Rate Period FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|---|
| **Operating Administrative Expenses** | | | | | | | |
| Administrative Compensation | 2 | $ 503,200 | $ 342,000 | $ 350,600 | $ 359,400 | $ 368,400 | $ 377,600 |
| Contractual Services - Auditor | 2 | 18,900 | 18,900 | 19,400 | 19,900 | 20,400 | 20,900 |
| Contractual Services - Legal | 2 | 35,000 | 40,000 | 41,000 | 42,000 | 43,100 | 44,200 |
| Legislative Affairs | 4 | 15,000 | 15,000 | 15,300 | 15,600 | 15,900 | 16,200 |
| PERS Contribution | 3 | 149,700 | 161,700 | 171,400 | 181,700 | 192,600 | 204,200 |
| Payroll Tax | 2 | 22,700 | 22,500 | 23,100 | 23,700 | 24,300 | 24,900 |
| Telephone , Fax, Internet | 4 | 5,700 | 9,000 | 9,200 | 9,400 | 9,600 | 9,800 |
| Mailing Expenses | 4 | 1,800 | 1,900 | 1,900 | 1,900 | 1,900 | 1,900 |
| Contractual Services - Other | 2 | 121,700 | 150,000 | 153,800 | 157,600 | 161,500 | 165,500 |
| Property/Liability Insurance | 4 | 88,458 | 102,000 | 104,000 | 106,100 | 108,200 | 110,400 |
| Workers Comp Insurance | 4 | 18,300 | 18,300 | 18,700 | 19,100 | 19,500 | 19,900 |
| Dues & Subscriptions & Annual Fees | 4 | 18,500 | 21,100 | 21,500 | 21,900 | 22,300 | 22,700 |
| Power/Propane - Office & Yards | 6 | 12,300 | 11,700 | 12,100 | 12,500 | 13,000 | 13,500 |
| Office Supplies/Printing | 4 | 8,800 | 12,200 | 12,400 | 12,600 | 12,900 | 13,200 |
| Employee Benefits Insurance | 3 | 286,100 | 229,300 | 243,100 | 257,700 | 273,200 | 289,600 |
| Employee Education | 4 | 12,100 | 5,700 | 5,800 | 5,900 | 6,000 | 6,100 |
| **Non-Operating Administrative Expenses** | | | | | | | |
| Office Equipment Expense | 4 | $ 14,100 | $ 14,100 | $ 14,400 | $ 14,700 | $ 15,000 | $ 15,300 |
| Customer Relations | 4 | 3,200 | 3,200 | 3,300 | 3,400 | 3,500 | 3,600 |
| Other Administrative Expenses | 4 | 14,400 | 14,400 | 14,700 | 15,000 | 15,300 | 15,600 |
| Election Costs | 4 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Misc. Expenses | 4 | 500 | 500 | 500 | 500 | 500 | 500 |
| **Operations Expense** | | | | | | | |
| Operations Staff Compensation | 2 | $ 499,500 | $ 498,800 | $ 511,300 | $ 524,100 | $ 537,200 | $ 550,600 |
| Uniforms | 4 | 10,000 | 10,000 | 10,200 | 10,400 | 10,600 | 10,800 |
| Vehicle, Tractor, Equipment Expense | 4 | 35,000 | 35,000 | 35,700 | 36,400 | 37,100 | 37,800 |
| Vehicle Expense - Fuel | 5 | 53,800 | 49,200 | 50,900 | 52,700 | 54,500 | 56,400 |
| Field Materials and Supplies | 4 | 78,800 | 78,800 | 80,400 | 82,000 | 83,600 | 85,300 |
| Water Testing | 4 | 15,000 | 15,000 | 15,300 | 15,600 | 15,900 | 16,200 |
| Engineering | 4 | 60,000 | 100,000 | 102,000 | 104,000 | 106,100 | 108,200 |
| Water System Repairs | 4 | 80,000 | 100,000 | 102,000 | 104,000 | 106,100 | 108,200 |
| Excavation Permit Fees (CoSB) | 4 | 500 | 500 | 500 | 500 | 500 | 500 |
| Building Maintenance and Repair | 4 | 15,500 | 15,500 | 15,800 | 16,100 | 16,400 | 16,700 |
| Communications Expense | 4 | 8,100 | 7,900 | 8,100 | 8,300 | 8,500 | 8,700 |
| Disinfection Expense | 4 | 15,500 | 13,400 | 13,700 | 14,000 | 14,300 | 14,600 |
| Power - Wells, Booster Pumps | 6 | 145,600 | 148,400 | 153,900 | 159,600 | 165,500 | 171,600 |
| Other Operations Expense | 4 | 12,500 | 11,600 | 11,800 | 12,000 | 12,200 | 12,400 |
| Water Purchases | 4 | 70,000 | - | - | - | - | - |
| **Sub-Total** | | **$ 2,451,258** | **$ 2,278,600** | **$ 2,348,800** | **$ 2,421,300** | **$ 2,496,600** | **$ 2,574,600** |

**BIGHORN DESERT WATER AGENCY**
**WATER RATE STUDY**
**Operating Revenue and Expenses**

**EXHIBIT 1**

**TABLE 6**

| DESCRIPTION | Inflation Basis | Budget FY 2024/25 | 5-Year Projected Rate Period FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|---|
| **Director Expense** | | | | | | | |
| Director - McBride | 7 | $ 10,000 | $ 14,000 | $ 14,000 | $ 14,000 | $ 14,000 | $ 14,000 |
| Director - Corl-Lorono | 7 | 10,000 | 14,000 | 14,000 | 14,000 | 14,000 | 14,000 |
| Director - J. Burkhart | 7 | 10,000 | 14,000 | 14,000 | 14,000 | 14,000 | 14,000 |
| Director - McKenzie | 7 | 10,000 | 14,000 | 14,000 | 14,000 | 14,000 | 14,000 |
| Director - Coulombe | 7 | 10,000 | 14,000 | 14,000 | 14,000 | 14,000 | 14,000 |
| **Sub-Total** | | **$ 50,000** | **$ 70,000** | **$ 70,000** | **$ 70,000** | **$ 70,000** | **$ 70,000** |

**TABLE 7**

| DESCRIPTION | Inflation Basis | Budget FY 2024/25 | 5-Year Projected Rate Period FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|---|
| **Administration Projects** | | | | | | | |
| | 4 | $ - | $ - | $ - | $ - | $ - | $ - |
| | 7 | - | - | - | - | - | - |
| **Sub-Total** | | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **GRAND TOTAL: WATER OPERATING EXPENSES** | | **$ 2,501,258** | **$ 2,348,600** | **$ 2,418,800** | **$ 2,491,300** | **$ 2,566,600** | **$ 2,644,600** |

**TABLE 8 : FORECASTING ASSUMPTIONS**

| INFLATION FACTORS [2] | Inflation Basis | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|---|
| Water Sales | 1 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Salaries [2] | 2 | 2.50% | 2.50% | 2.50% | 2.50% | 2.50% | 2.50% |
| Benefits [3] | 3 | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% | 6.00% |
| General Inflation [4] | 4 | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% | 2.00% |
| Fuel [5] | 5 | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| Electricity [6] | 6 | 3.70% | 3.70% | 3.70% | 3.70% | 3.70% | 3.70% |
| No Escalation | 7 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

1. Revenue and expenses for FY 2024-25 are from source file: 1-4. GY 2024.25 Budget
2. Social Security COLA for 2024; Website: https://www.ssa.gov/OACT/COLA/colaseries.html
3. Benefits inflation set to 6% per Agency staff May 2025.
4. Five-year average CPI for All Urban Consumers for the Los Angeles/Riverside/Orange County areas, per BLS, Series ID:CUURS49ASA0 .
5. Five-year average CPI for Motor Fuel for the Los Angeles/Riverside/Orange County areas, per BLS, Series ID:CUURS49ASETB .
6. Five-year average CPI for Electricity for the Los Angeles/Riverside/Orange County areas, per BLS, Series ID:CUURS49ASA0E .

**BIGHORN DESERT WATER AGENCY** **EXHIBIT 2**
**WATER RATE STUDY**
**Capital Improvement Plan Expenditures**

**TABLE 9 : CAPITAL FUNDING SUMMARY**

| CAPITAL FUNDING FORECAST | Budget | Projected | | | | |
|---|---|---|---|---|---|---|
| **Funding Sources:** | **FY 2024/25** | **FY 2025/26** | **FY 2026/27** | **FY 2027/28** | **FY 2028/29** | **FY 2029/30** |
| Grants[1] | $ - | $ 7,749,000 | $ 3,000,000 | $ - | $ - | $ - |
| Use of R&R Reserves | - | 731,605 | | | 820 | 322,156 |
| Use of Connection Fee Reserve | - | - | - | - | - | - |
| Use of New Revenue Bond Proceeds | - | - | 825,547 | 628,495 | 545,958 | - |
| Rate Revenue | - | 182,901 | 206,387 | 157,124 | 136,694 | - |
| **Total Sources of Capital Funds** | **$ -** | **$ 8,663,506** | **$ 4,031,934** | **$ 785,619** | **$ 683,472** | **$ 322,156** |
| ***Uses of Capital Funds:*** | | | | | | |
| Total Project Costs | $ - | $ 8,663,506 | $ 4,031,934 | $ 785,619 | $ 683,472 | $ 322,156 |
| ***Capital Funding Surplus (Deficiency)*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ 0*** |
| ***Bank Loan*** | ***$ -*** | ***$ -*** | ***$ 2,000,000*** | ***$ -*** | ***$ -*** | ***$ -*** |
| ***New Revenue Bond Proceeds*** | ***$ -*** | ***$ -*** | | | | |

1. Grant Funding is per page 6 of the Agency's 2024/25 budget (file: *FY2024-25 Budget.pdf* ). Grant funding for 2025/26 based on Grant project expenses in CIP.

**CAPITAL IMPROVEMENT PROGRAM FUNDING OPTIONS**

| CIP Funding Options | | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|---|
| 1 | Full Program | $ - | $ 1,219,341 | $ 1,375,912 | $ 1,047,492 | $ 911,296 | $ 429,541 |
| 2 | 80% Program | $ - | $ 975,473 | $ 1,100,730 | $ 837,994 | $ 729,037 | $ 343,633 |
| 3 | 75% Program | $ - | $ 914,506 | $ 1,031,934 | $ 785,619 | $ 683,472 | $ 322,156 |
| 4 | 60% Program | $ - | $ 731,605 | $ 825,547 | $ 628,495 | $ 546,778 | $ 257,725 |

| **Funding Option Selected** | 3 |
|---|---|

| Capital Improvement Program Funding Choice | FY 2024/25 | FY 2025/26 | FY 2026/27 | FY 2027/28 | FY 2028/29 | FY 2029/30 |
|---|---|---|---|---|---|---|
| Effective Annual Funding Amount | $ - | $ 8,663,506 | $ 4,031,934 | $ 785,619 | $ 683,472 | $ 322,156 |

**BIGHORN DESERT WATER AGENCY** **EXHIBIT 2**
**WATER RATE STUDY**
**Capital Improvement Plan Expenditures**

**CAPITAL IMPROVEMENT PROGRAM**

**TABLE 10 : CAPITAL IMPROVEMENT PROGRAM COSTS (IN CURRENT-YEAR DOLLARS)** [1]

| Avg. Life Yrs. | Project Description | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|
| **Refurbish and Replacement Projects** | | | | | | | |
| 15 | Admin Building Roof Replacement | | $ 50,000 | | | | |
| 15 | Meter Replacements | | 10,000 | | | | |
| 8 | Rate Study | | 40,000 | | | | |
| 8 | Well 8 Rehab | | | | 200,000 | | |
| 8 | Well 9 Rehab | | | | | 200,000 | |
| 8 | Well 10 Rehab | | | 200,000 | | | |
| 30 | Well GMW1 - plan to deepen well thru casing | | | | | | |
| 30 | Well GMW3 Rehab | | | | 200,000 | | |
| 30 | Well 13 - Complete new well (then Rehab) | | 242,000 | | | | |
| 30 | Complete New Well in B-Zone | | 150,000 | 500,000 | | | |
| 30 | Complete New Well in D-Zone (Deepen Well 6?) | | | | 150,000 | 500,000 | |
| | Reservoir Rehabiliation | | | | | | |
| 8 | Pump Well 8 | | | | 100,000 | | |
| 8 | Pump Well 9 | | | | | 100,000 | |
| 8 | Pump Well 10 | | | 100,000 | | | |
| 8 | Pump Well GMW1 | | | | | | |
| 8 | Pump Well GMW3 | | | | 100,000 | | |
| 8 | Pump Well 13 (first Pump w/piping & valving) | | 150,000 | | | | |
| | Zone B Pipeline/D&R1Booster/HDWD#2/LandersCons | | 6,935,000 | 3,000,000 | | | |
| | Operations Well/Pump Emergency Contingency | | | | | | |
| 60 | New Storage Tank R1 | | 300,000 | 300,000 | | | |
| 20 | Utility Billing Software Replacement | | | | 200,000 | | |
| | Rehabilitate Tank B1/B2 | | 739,000 | | | | |
| 20 | Replace Generator - 90 KW mobile | | | | | | 100,000 |
| | Vac/Valve Trailer Replacement | | 65,000 | | | | |
| 15 | Replace Tractor | | | | | | 200,000 |
| 9 | Replace Fleet Vehicles (avg life) | | | | | | 65,000 |
| **Operations Capital Projects (Grant Funded)** | | | | | | | |
| | Water Storage Tank Recoating (B1, B2) | | | | | | |
| | GMWell 13 Project | | | | | | |
| | Zone B Pipeline/D&R1Booster/HDWD#2/LandersConsolidation | | | | | | |
| | Meter Replacement Program | | | | | | |
| **Total: CIP Program Costs** *(Current-Year Dolla* | | **$ -** | **$ 8,681,000** | **$ 4,100,000** | **$ 950,000** | **$ 800,000** | **$ 365,000** |

**BIGHORN DESERT WATER AGENCY** **EXHIBIT 2**
**WATER RATE STUDY**
**Capital Improvement Plan Expenditures**

**TABLE 11 : CAPITAL IMPROVEMENT PROGRAM COSTS (IN FUTURE-YEAR DOLLARS)** [1]

| Project Description | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|---|
| **Refurbish and Replacement Projects** | | | | | | | |
| 15 | Admin Building Roof Replacement | - | 51,655 | - | - | - | - |
| 15 | Meter Replacements | - | 10,331 | - | - | - | - |
| 8 | Rate Study | - | 41,324 | - | - | - | - |
| 8 | Well 8 Rehab | - | - | - | 220,525 | - | - |
| 8 | Well 9 Rehab | - | - | - | - | 227,824 | - |
| 8 | Well 10 Rehab | - | - | 213,459 | - | - | - |
| 30 | Well GMW1 - plan to deepen well t | - | - | - | - | - | - |
| 30 | Well GMW3 Rehab | - | - | - | 220,525 | - | - |
| 30 | Well 13 - Complete new well (then | - | 250,010 | - | - | - | - |
| 30 | Complete New Well in B-Zone | - | 154,965 | 533,648 | - | - | - |
| 30 | Complete New Well in D-Zone (Dee | - | - | - | 165,393 | 569,560 | - |
| -- | Reservoir Rehabiliation | - | - | - | - | - | - |
| 8 | Pump Well 8 | - | - | - | 110,262 | - | - |
| 8 | Pump Well 9 | - | - | - | - | 113,912 | - |
| 8 | Pump Well 10 | - | - | 106,730 | - | - | - |
| 8 | Pump Well GMW1 | - | - | - | - | - | - |
| 8 | Pump Well GMW3 | - | - | - | 110,262 | - | - |
| 8 | Pump Well 13 (first Pump w/piping | - | 154,965 | - | - | - | - |
| -- | Zone B Pipeline/D&R1Booster/HDW | - | 7,164,549 | 3,201,887 | - | - | - |
| -- | Operations Well/Pump Emergency | - | - | - | - | - | - |
| 60 | New Storage Tank R1 | - | 309,930 | 320,189 | - | - | - |
| 20 | Utility Billing Software Replacemen | - | - | - | 220,525 | - | - |
| -- | Rehabilitate Tank B1/B2 | - | 763,461 | - | - | - | - |
| 20 | Replace Generator - 90 KW mobile | - | - | - | - | - | 117,682 |
| -- | Vac/Valve Trailer Replacement | - | 67,152 | - | - | - | - |
| 15 | Replace Tractor | - | - | - | - | - | 235,365 |
| 9 | Replace Fleet Vehicles (avg life) | - | - | - | - | - | 76,494 |
| tal Projects | -- | - | - | - | - | - | - |
| -- | Water Storage Tank Recoating (B1, | - | - | - | - | - | - |
| -- | GMWell 13 Project | - | - | - | - | - | - |
| -- | Zone B Pipeline/D&R1Booster/HDW | - | - | - | - | - | - |
| -- | Meter Replacement Program | - | - | - | - | - | - |
| **Total: CIP Program Costs** *(Future-Year Dollar* | | **$ -** | **$ 8,968,341** | **$ 4,375,912** | **$ 1,047,492** | **$ 911,296** | **$ 429,541** |

**TABLE 12 : FORECASTING ASSUMPTIONS**

| Economic Variables | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|---|---|---|---|---|---|---|
| Annual Construction Cost Inflation, Per | *0.00%* | *3.31%* | *3.31%* | *3.31%* | *3.31%* | *3.31%* |
| Cumulative Construction Cost Multiplier from 202 | *1.00* | *1.03* | *1.07* | *1.10* | *1.14* | *1.18* |

1. Estimated capital improvement project costs found in source files: *BDVWA CIP Working 2025-2036.xlsx*
2. Construction inflator is based on the most current 10 year average of the Engineering News-Record Construction Cost Index.
   Source: www.enr.com/economics (June 2015 to June 2025).

**TABLE 13**

| AGENCY DEBT OBLIGATIONS | | | | | | |
|---|---|---|---|---|---|---|
| **Annual Repayment Schedules:** | **FY 2024/25** | **FY 2025/26** | **FY 2026/27** | **FY 2027/28** | **FY 2028/29** | **FY 2029/30** |
| Water Revenue Bonds [1] | | | | | | |
| Principal Payment | $ - | $ - | $ - | $ - | $ - | $ - |
| Interest Payment | - | - | - | - | - | - |
| **Subtotal: Annual Debt Service** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| Coverage Requirement ($-Amnt above annual payment) | 100% | 100% | 100% | 100% | 100% | 100% |
| Reserve Requirement (total fund balance) | $ - | $ - | $ - | $ - | $ - | $ - |
| Debt | | | | | | |
| Principal Payment [2] | $ - | $ - | $ - | $ - | $ - | $ - |
| Interest Payment | - | - | - | - | - | - |
| **Subtotal: Annual Debt Service** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| Coverage Requirement ($-Amnt above annual payment) | 100% | 100% | 100% | 100% | 100% | 100% |
| Reserve Requirement (total fund balance) | $ - | $ - | $ - | $ - | $ - | $ - |

1. Water revenue bonds due to mature in ____. Source file:
2. _____.

**TABLE 14 : EXISTING ANNUAL DEBT OBLIGATIONS TO BE SATISFIED BY WATER RATES**

| | | | | | | |
|---|---|---|---|---|---|---|
| ***Existing Annual Debt Service*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** |
| ***Existing Annual Coverage Requirement*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** | ***100%*** |
| ***Existing Debt Reserve Target*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** | ***$ -*** |

**BIGHORN DESERT WATER AGENCY** **EXHIBIT 3**
**WATER RATE STUDY**
**Debt Service**

**FUTURE DEBT FINANCING ASSUMPTIONS:**

| Long-Term Debt Terms | Bank Loan | Revenue Bonds |
|---|---|---|
| Issuance Cost | 2.00% | 2.00% |
| Annual Interest Cost (%) | 5.50% | 5.50% |
| Term | 20 | 30 |
| Debt Reserve Funded? | No | Yes |
| Coverage Requirement (% above annual pmt) | 0% | 25% |

**FUTURE DEBT OBLIGATIONS:**

| Annual Repayment Schedules | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| Bank Loan Funding | | | | | | |
| Principal Payment | $ - | $ - | $ - | $ 57,359 | $ 60,513 | $ 63,842 |
| Interest Payment | - | - | - | 110,000 | 106,845 | 103,517 |
| **Subtotal: Annual Debt Service** | **$ -** | **$ -** | **$ -** | **$ 167,359** | **$ 167,359** | **$ 167,359** |
| Revenue Bonds | | | | | | |
| Principal Payment | $ - | $ - | $ - | $ - | $ - | $ - |
| Interest Payment | - | - | - | - | - | - |
| **Subtotal: Annual Debt Service** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **Grand Total: Future Annual Debt Service** | **$ -** | **$ -** | **$ -** | **$ 167,359** | **$ 167,359** | **$ 167,359** |
| **Grand Total: New Annual Coverage Requirement** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |
| **Grand Total: Future Debt Reserve Target** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** |

**TOTAL DEBT SERVICE:**

| Annual Obligations | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 |
|---|---|---|---|---|---|---|
| Annual Debt Service | $ - | $ - | $ - | $ 167,359 | $ 167,359 | $ 167,359 |
| Annual Coverage Requirement | 125% | 125% | 125% | 125% | 125% | 125% |
| Total Debt Reserve Target | $ - | $ - | $ - | $ - | $ - | $ - |

**TABLE 15**

| Classification of Expenses | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Budget Categories** | **Total Revenue Requirements** | **Commodity** | **Additonal Supply** | **Capacity** | **Customer** | **Fire Protection** | **Basis of Classification** | | | | |
| | **FY 2025/26** | **(COM)** | **(ADD SUP)** | **(CAP)** | **(CA)** | **(FP)** | **COM** | **ADD SUP** | **CAP** | **CA** | **FP** |
| **Operating Administrative Expenses** | | | | | | | | | | | |
| Administrative Compensation | $ 342,000 | $ 99,180 | $ - | $ 205,200 | $ 34,200 | $ 3,420 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Contractual Services - Auditor | $ 18,900 | $ 5,481 | $ - | $ 11,340 | $ 1,890 | $ 189 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Contractual Services - Legal | $ 40,000 | $ 11,600 | $ - | $ 24,000 | $ 4,000 | $ 400 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Legislative Affairs | $ 15,000 | $ 4,350 | $ - | $ 9,000 | $ 1,500 | $ 150 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| PERS Contribution | $ 161,700 | $ 46,893 | $ - | $ 97,020 | $ 16,170 | $ 1,617 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Payroll Tax | $ 22,500 | $ 6,525 | $ - | $ 13,500 | $ 2,250 | $ 225 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Telephone , Fax, Internet | $ 9,000 | $ 2,610 | $ - | $ 5,400 | $ 900 | $ 90 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Mailing Expenses | $ 1,900 | $ - | $ - | $ - | $ 1,900 | $ - | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% |
| Contractual Services - Other | $ 150,000 | $ 43,500 | $ - | $ 90,000 | $ 15,000 | $ 1,500 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Property/Liability Insurance | $ 102,000 | $ 29,580 | $ - | $ 61,200 | $ 10,200 | $ 1,020 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Workers Comp Insurance | $ 18,300 | $ 5,307 | $ - | $ 10,980 | $ 1,830 | $ 183 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Dues & Subscriptions & Annual Fees | $ 21,100 | $ 6,119 | $ - | $ 12,660 | $ 2,110 | $ 211 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Power/Propane - Office & Yards | $ 11,700 | $ 3,393 | $ - | $ 7,020 | $ 1,170 | $ 117 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Office Supplies/Printing | $ 12,200 | $ 3,538 | $ - | $ 7,320 | $ 1,220 | $ 122 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Employee Benefits Insurance | $ 229,300 | $ 66,497 | $ - | $ 137,580 | $ 22,930 | $ 2,293 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Employee Education | $ 5,700 | $ 1,653 | $ - | $ 3,420 | $ 570 | $ 57 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| **Non-Operating Administrative Expenses** | | | | | | | | | | | |
| Office Equipment Expense | $ 14,100 | $ 4,089 | $ - | $ 8,460 | $ 1,410 | $ 141 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Customer Relations | $ 3,200 | $ - | $ - | $ - | $ 3,200 | $ - | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% |
| Other Administrative Expenses | $ 14,400 | $ 4,176 | $ - | $ 8,640 | $ 1,440 | $ 144 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Election Costs | $ 1,000 | $ 290 | $ - | $ 600 | $ 100 | $ 10 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Misc. Expenses | $ 500 | $ 145 | $ - | $ 300 | $ 50 | $ 5 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| **Sub-Total** | **$ 1,194,500** | **$ 344,926** | **$ -** | **$ 713,640** | **$ 124,040** | **$ 11,894** | **28.9%** | **0.0%** | **59.7%** | **10.4%** | **1.00%** |

**TABLE 16**

**Classification of Expenses, continued**

| Budget Categories | Total Revenue Requirements | Commodity | Additonal Supply | Capacity | Customer | Fire Protection | Basis of Classification | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | FY 2025/26 | (COM) | (ADD SUP) | (CAP) | (CA) | (FP) | COM | ADD SUP | CAP | CA | FP |
| **Operations Expense** | | | | | | | | | | | |
| Operations Staff Compensation | $ 498,800 | $ 144,652 | $ - | $ 299,280 | $ 49,880 | $ 4,988 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Uniforms | $ 10,000 | $ 2,900 | $ - | $ 6,000 | $ 1,000 | $ 100 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Vehicle, Tractor, Equipment Expense | $ 35,000 | $ 10,150 | $ - | $ 21,000 | $ 3,500 | $ 350 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Vehicle Expense - Fuel | $ 49,200 | $ 14,268 | $ - | $ 29,520 | $ 4,920 | $ 492 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Field Materials and Supplies | $ 78,800 | $ 22,852 | $ - | $ 47,280 | $ 7,880 | $ 788 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Water Testing | $ 15,000 | $ 15,000 | $ - | $ - | $ - | $ - | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Engineering | $ 100,000 | $ 29,000 | $ - | $ 60,000 | $ 10,000 | $ 1,000 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Water System Repairs | $ 100,000 | $ 29,000 | $ - | $ 60,000 | $ 10,000 | $ 1,000 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Excavation Permit Fees (CoSB) | $ 500 | $ 145 | $ - | $ 300 | $ 50 | $ 5 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Building Maintenance and Repair | $ 15,500 | $ 4,495 | $ - | $ 9,300 | $ 1,550 | $ 155 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Communications Expense | $ 7,900 | $ - | $ - | $ - | $ 7,900 | $ - | 0.0% | 0.0% | 0.0% | 100.0% | 0.0% |
| Disinfection Expense | $ 13,400 | $ 13,400 | $ - | $ - | $ - | $ - | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Power - Wells, Booster Pumps | $ 148,400 | $ 148,400 | $ - | $ - | $ - | $ - | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Other Operations Expense | $ 11,600 | $ 3,364 | $ - | $ 6,960 | $ 1,160 | $ 116 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Water Purchases | $ - | $ - | $ - | $ - | $ - | $ - | 0.0% | 100.0% | 0.0% | 0.0% | 0.0% |
| **Director Expense** | | | | | | | | | | | |
| Director - McBride | $ 14,000 | $ 4,060 | $ - | $ 8,400 | $ 1,400 | $ 140 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Director - Corl-Lorono | $ 14,000 | $ 4,060 | $ - | $ 8,400 | $ 1,400 | $ 140 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Director - J. Burkhart | $ 14,000 | $ 4,060 | $ - | $ 8,400 | $ 1,400 | $ 140 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Director - McKenzie | $ 14,000 | $ 4,060 | $ - | $ 8,400 | $ 1,400 | $ 140 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| Director - Coulombe | $ 14,000 | $ 4,060 | $ - | $ 8,400 | $ 1,400 | $ 140 | 29.0% | 0.0% | 60.0% | 10.0% | 1.00% |
| **Sub-Total** | **$ 1,154,100** | **$ 457,926** | **$ -** | **$ 581,640** | **$ 104,840** | **$ 9,694** | **39.7%** | **0.0%** | **50.4%** | **9.1%** | **0.8%** |
| **Total Operating Expense** | **$ 2,348,600** | **$ 802,852** | **$ -** | **$ 1,295,280** | **$ 228,880** | **$ 21,588** | **34.2%** | **0.0%** | **55.2%** | **9.7%** | **0.9%** |

**TABLE 17**

| Classification of Expenses, continued | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Budget Categories** | **Total Revenue Requirements** | **Commodity** | **Additonal Supply** | **Capacity** | **Customer** | **Fire Protection** | **Basis of Classification** | | | | |
| | **FY 2025/26** | **(COM)** | **(ADD SUP)** | **(CAP)** | **(CA)** | **(FP)** | **COM** | **ADD SUP** | **CAP** | **CA** | **FP** |
| **Debt Service Payments** | | | | | | | | | | | |
| Existing Debt Service | $ - | $ - | $ - | $ - | $ - | $ - | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| New Debt Service | $ - | $ - | $ - | $ - | $ - | $ - | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| **Total Debt Service Payments** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **$ -** | **0.0%** | **0.0%** | **0.0%** | **0.0%** | **0.0%** |
| **Capital Expenditures** | | | | | | | | | | | |
| Rate Funded Capital Expenses | $ 182,901 | $ - | $ - | $ 182,901 | $ - | $ - | 0.0% | 0.0% | 100.0% | 0.0% | 0.0% |
| **TOTAL REVENUE REQUIREMENTS** | **$ 2,531,501** | **$ 802,852** | **$ -** | **$ 1,478,181** | **$ 228,880** | **$ 21,588** | **31.7%** | **0.0%** | **58.4%** | **9.0%** | **0.9%** |
| ***Less: Non-Rate Revenues*** | | | | | | | | | | | |
| **Operating Revenue** | | | | | | | | | | | |
| Metered Water Sales - Tier 1 | | | | | | | | | | | |
| Metered Water Sales - Tier 2 | | | | | | | | | | | |
| Basic Service Charge | | | | | | | | | | | |
| Other Operating Income | $ (67,700) | $ (21,471) | $ - | $ (39,531) | $ (6,121) | $ (577) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| Interest Income Unrestricted | $ (177,800) | $ (56,388) | $ - | $ (103,820) | $ (16,075) | $ (1,516) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| **Non-Operating Revenue** | | | | | | | | | | | |
| Stand-By Income W-1 | $ (63,900) | $ (20,266) | $ - | $ (37,312) | $ (5,777) | $ (545) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| General Tax Income (portion of 1%) | $ (299,700) | $ (95,048) | $ - | $ (174,999) | $ (27,097) | $ (2,556) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| Other Revenue | $ (21,300) | $ (6,755) | $ - | $ (12,437) | $ (1,926) | $ (182) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| Pacific Western Earning Credits | $ (4,800) | $ (1,522) | $ - | $ (2,803) | $ (434) | $ (41) | 31.7% | 0.0% | 58.4% | 9.0% | 0.9% |
| **Non-Operating Revenue - New Connections** | | | | | | | | | | | |
| Meter Connect Fees (SL Install Fees) | | | | | | | | | | | |
| Basic Facilities Charge (Buy-In) | | | | | | | | | | | |
| **NET REVENUE REQUIREMENTS** | **$ 1,896,301** | **$ 601,402** | **$ -** | **$ 1,107,278** | **$ 171,450** | **$ 16,171** | | | | | |
| ***Allocation of Revenue Requirements*** | **100.0%** | **31.7%** | **0.0%** | **58.4%** | **9.0%** | **0.9%** | | | | | |

**TABLE 18**

| Classification of Expenses, continued<br>Adjustments to Classification of Expenses | | | | | | |
|---|---|---|---|---|---|---|
| **Adjustment for Current Rate Level:** | **Total** | **COM** | **ADD SUP** | **CAP** | **CA** | **FP** |
| FY 2025/26 Target Rate Rev. After Rate Incr | $ 2,099,400 | *$ 665,814* | $ - | *$ 1,225,871* | *$ 189,813* | *$ 17,903* |
| Projected Rate Revenue at Current Rates | $ 2,099,400 | *$ 665,814* | $ - | *$ 1,225,871* | *$ 189,813* | *$ 17,903* |
| FY 2025/26 Projected Rate Increase | 0.0% | | | | | |
| **Adjusted Net Revenue Req'ts** | **$ 2,099,400** | **$ 665,814** | **$ -** | **$ 1,225,871** | **$ 189,813** | **$ 17,903** |
| *Percent of Revenue* | *100.0%* | *31.7%* | *0.0%* | *58.4%* | *9.0%* | *0.9%* |

**TABLE 19**

| Development of the COMMODITY Allocation Factor | | | *Average Monthly Statistics* | | | *Average Bi-Monthly Statistics* | | |
|---|---|---|---|---|---|---|---|---|
| **Customer Class** | **Annual Volume (hcf)** [1] | **Percent of Total Volume** | ***Winter*** | ***Monthly/ Meter*** | ***Summer*** | **Winter** | **Annual** | **Summer** |
| Residential[2] | 176,959 | **93.0%** | 3.3 | 5.4 | 8.0 | 6.5 | 10.8 | 16.1 |
| Agriculture | 2,367 | **1.2%** | 4.0 | 1.1 | 4.1 | 7.9 | 2.1 | 8.2 |
| Bulk Water | 2,191 | **1.2%** | 1.4 | 2.1 | 3.0 | 2.9 | 4.2 | 6.0 |
| Commercial | 8,747 | **4.6%** | 19.3 | 30.4 | 40.6 | 38.7 | 60.7 | 81.3 |
| Commercial + Backflow | - | **0.0%** | | | | | | |
| Fire Meter | 47 | **0.02%** | 0.0 | 0.6 | 3.1 | 0.0 | 1.1 | 6.3 |
| **Total** | **190,311** | **100%** | | | | | | |

1. Consumption is from Jan-Dec 2024. BDVWA bills customers for fixed charges bi-monthly; volumetric rates are $/HCF.
   Source files: *Combined Billing.xlsx*
2. Includes Ag + Residence class (the average demand of this class is less than Residential and, therefore, is combined with Residential).

***Commodity Related Costs:*** *These costs are associated with the total consumption (flow) of water over a specified period of time (e.g. annual).*

**TABLE 20**

| Development of the CAPACITY (MAX MONTH) Allocation Factor | | | | |
|---|---|---|---|---|
| **Customer Class** | **Average Bi-Monthly Use (hcf)** | **Peak Bi-Monthly Use (hcf) [1]** | **Peaking Factor** | **Max Bi-Month Capacity Factor** |
| Residential[2] | 29,493 | 43,759 | **1.48** | **93.3%** |
| Agriculture | 394 | 634 | **1.61** | **1.4%** |
| Bulk Water | 365 | 522 | **1.43** | **1.1%** |
| Commercial | 1,458 | 1,951 | **1.34** | **4.2%** |
| Fire Meter | 8 | 44 | **5.57** | **0.094%** |
| **Total** | **31,718** | **46,909** | | **100.0%** |

1. Based on peak monthly data (peak day data not available).
2. Includes Ag + Residence class.

***Capacity Related Costs:*** *Costs associated with the maximum demand required at one point in time or the maximum size of facilities required to meet this demand.*

**TABLE 21**

| Development of the CUSTOMER Allocation Factor | | |
|---|---|---|
| **Customer Class** | **Number of Meters [1]** | **Percent of Total** |
| Residential[2] | 2,555 | **94.5%** |
| Agriculture | 53 | **2.0%** |
| Bulk Water | 77 | **2.8%** |
| Commercial | 15 | **0.6%** |
| Commercial + Backflow | - | **0.0%** |
| Fire Meter | 4 | **0.1%** |
| Institutional - Fire Dept. | - | **0.0%** |
| Institutional + Backflow | - | **0.0%** |
| **Total** | **2,704** | **100.0%** |

1. Distinct accounts from 2024. Source files: Combined Billing.xlsx
2. Includes Ag + Residence class.

***Customer Related Costs*** *: Costs associated with having a customer on the water system. These costs vary with the addition or deletion of customers on the system. Examples: Meter-reading, Postage and billing.*

**TABLE 22**

| Meter Size | Standard Meters [1] | | Fire Service Meters [2] | |
|---|---|---|---|---|
| | Meter Capacity (gpm) | Equivalency to 1 inch | Meter Capacity (gpm) | Equivalency to 1 inch |
| | *Displacement Meters* | | *Displacement Meters* | |
| 3/4 inch | 30 | 1.00 | 30 | 1.00 |
| 1 inch | 50 | 1.00 | 50 | 1.00 |
| 1.5 inch | 100 | 2.00 | 100 | 2.00 |
| 2 inch | 160 | 3.20 | 160 | 3.20 |
| | *Compound Class I Meters* | | *Fire Service Type II* | |
| 3 inch | 320 | 6.40 | 350 | 7.00 |
| 4 inch | 500 | 10.00 | 700 | 14.00 |
| 6 inch | 1,000 | 20.00 | 1,600 | 32.00 |
| 8 inch | 1,600 | 32.00 | 2,800 | 56.00 |

1. Meter flow rates are from *AWWA M-1* Table B-1.
2. Fire Service meter flow rates are from AWWA M-6 Table 5-3.

**TABLE 23 : ALLOCATION OF WATER REVENUE REQUIREMENTS**

| Functional Category | *COSA Results* Unadjusted Net Revenue Requirements (2025/26) 68% Fixed / 32% Variable | | *Proposed Rates* Adjusted Net Revenue Requirements (2025/26) 60% Fixed / 40% Variable | |
|---|---|---|---|---|
| Commodity - Related Costs | $ 665,814 | *31.7%* | $ 665,814 | *31.7%* |
| Additional Supply Costs | $ - | *0.0%* | $ - | *0.0%* |
| Capacity - Related Costs (vol. share) | $ - | *0.0%* | $ 173,946 | *8.3%* |
| Total Commodity-Related | $ 665,814 | *31.7%* | $ 839,760 | *40.0%* |
| Capacity - Related Costs | $ 1,225,871 | *58.4%* | $ 1,051,924 | *50.1%* |
| Customer - Related Costs | $ 189,813 | *9.0%* | $ 189,813 | *9.0%* |
| Fire Protection - Related Costs | $ 17,903 | *0.9%* | $ 17,903 | *0.9%* |
| Total Capacity-Related | $ 1,433,586 | *68.3%* | $ 1,259,640 | *60.0%* |
| **Total** | $ 2,099,400 | *100%* | $ 2,099,400 | *100%* |

**TABLE 24 : ALLOCATION OF ADJUSTED NET REVENUE REQUIREMENTS**

***Proposed Rates - Net Revenue Requirements (60% Fixed / 40% Variable)***

| Customer Classes | Classification Components | | | | | | Cost of Service Net Rev. Req'ts | % of COS Net Revenue Req'ts |
|---|---|---|---|---|---|---|---|---|
| | Commodity-Related Costs | Additional Supply Costs | Capacity-Related Costs *Volumetric Share* | Capacity-Related Costs *Fixed Share* | Customer-Related Costs | Fire Protection-Related Costs | | |
| Residential[2] | $ 619,100 | $ - | $ 162,263 | $ 981,270 | $ 179,353 | $ - | $ 1,941,986 | *92.5%* |
| Agriculture | 8,280 | - | 2,352 | 14,222 | 3,720 | - | 28,575 | *1.4%* |
| Commercial | 30,603 | - | 7,234 | 43,747 | 1,053 | - | 82,637 | *3.9%* |
| Fire Meter | 166 | - | 163 | 987 | 281 | 17,903 | 19,500 | *0.9%* |
| **Total Net Revenue Requirement** | **$ 658,149** | **$ -** | **$ 172,012** | **$ 1,040,226** | **$ 184,407** | **$ 17,903** | **$ 2,072,697** | **98.7%** |
| ***Total Volumetric Revenue Req't*** | ***$830,161*** | | | | | | ***$2,072,697*** | |
| ***Total Fixed Charge Revenue Req't*** | | | | ***$1,242,536*** | | | | |
| Bulk Water *(Collected from Vol. Rates)* | 7,664 | - | 1,934 | 11,698 | 5,405 | - | 26,703 | *1.3%* |
| **Total Net Revenue Requirement** | **$ 665,814** | **$ -** | **$ 173,946** | **$ 1,051,924** | **$ 189,813** | **$ 17,903** | **$ 2,099,400** | **100.0%** |

**TABLE 25 : CALCULATION OF BI-MONTHLY FIXED METER SERVICE CHARGES**

***Proposed Rates - Net Revenue Requirements (60% Fixed / 40% Variable)***

| Number of Meters by Class and Size [1] | 3/4 inch | 1 inch | 1 1/2 inch | 2 inch | 3 inch | 4 inch | 6 inch | Total |
|---|---|---|---|---|---|---|---|---|
| Residential[2] | 2,486 | 69 | - | - | - | - | - | 2,555 |
| Agriculture | 53 | - | - | - | - | - | - | 53 |
| Commercial | 9 | 5 | - | 1 | - | - | - | 15 |
| **Total Meters/Accounts** | **2,548** | **74** | **-** | **1** | **-** | **-** | **-** | **2,623** |
| *Hydraulic Capacity Factor* [3] | *1.00* | *1.00* | *2.00* | *3.20* | *6.40* | *10.00* | *20.00* | |
| **Total Equivalent Meters** | **2,548** | **74** | **-** | **3.20** | **-** | **-** | **-** | **2,625** |
| **Bi-Monthly Fixed Service Charges** | | | | | | | | |
| Customer Costs ($/Acct/2 months) [4] | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | $11.72 | |
| Capacity Costs ($/Acct/2 months) [5] | $66.04 | $66.04 | $132.08 | $211.33 | $422.66 | $660.41 | $1,320.82 | |
| **Total Bi-Monthly Meter Charge** | **$77.76** | **$77.76** | **$143.80** | **$223.05** | **$434.38** | **$672.13** | **$1,332.54** | |
| **Annual Fixed Costs Allocated to Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Costs | $ 184,407 | | | | | | | |
| Capacity Costs | 1,040,226 | | | | | | | |
| **Total Fixed Meter Costs** | $ 1,224,633 | | | | | | | |
| **Annual Revenue from Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Charges | $ 179,135 | $ 5,202 | $ - | $ 70 | $ - | $ - | $ - | **$ 184,407** |
| Capacity Charges | 1,009,636 | 29,322 | - | 1,268 | - | - | - | **$ 1,040,226** |
| **Total Revenue from Bi-Monthly Meter Charges** | **$ 1,188,770** | **$ 34,525** | **$ -** | **$ 1,338** | **$ -** | **$ -** | **$ -** | **$ 1,224,633** |

1. Meter Count is distinct accounts from Jan-Dec 2024. BHDVWA charges monthly rates, but bills bi-monthly.
   Source files: *Combined Billing.xlsx*
2. Includes Ag + Residence class (the average demand of this class is less than Residential and, therefore, is combined with Residential).
3. Source file: *AWWA Manual M1, "Principles of Water Rates, Fees, and Charges"*, Table B-1.
4. Customer costs are allocated to each customer by dividing the total customer costs by the total number of customers.
5. Capacity costs are allocated by meter size and the hydraulic capacity of the meter.

**TABLE 26 : CALCULATION OF BI-MONTHLY FIXED METER SERVICE CHARGES - Fire Protection**

***Proposed Rates - Net Revenue Requirements (60% Fixed / 40% Variable)***

| Number of Meters by Class and Size [1] | 3/4 inch | 1 inch | 2 inch | 3 inch | 4 inch | 6 inch | 8 inch | Total |
|---|---|---|---|---|---|---|---|---|
| **Fire Protection - Related Costs** | - | 2 | - | - | - | 2 | - | 4 |
| **Total Meters/Accounts** | **-** | **2** | **-** | **-** | **-** | **2** | **-** | **4** |
| *Hydraulic Capacity Factor* [2] | *1.00* | *1.00* | *3.20* | *7.00* | *14.00* | *32.00* | *56.00* | |
| **Total Equivalent Meters** | **-** | **2** | **-** | **-** | **-** | **64** | **-** | **66** |
| **Bi-Monthly Fixed Service Charges** | | | | | | | | |
| Customer Costs ($/Acct/2 months) [3] | $11.70 | $11.70 | $11.70 | $11.70 | $11.70 | $11.70 | $11.70 | |
| Capacity Costs ($/Acct/2 months) [4] | $47.70 | $47.70 | $152.65 | $333.91 | $667.82 | $1,526.45 | $2,671.29 | |
| **Total Bi-Monthly Meter Charge** | **$59.40** | **$59.40** | **$164.34** | **$345.61** | **$679.52** | **$1,538.15** | **$2,682.99** | |
| **Annual Fixed Costs Allocated to Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Costs | $ 281 | | | | | | | |
| Fire Protection Costs | 18,890 | | | | | | | |
| **Total Fixed Meter Costs** | $ 19,171 | | | | | | | |
| **Annual Revenue from Bi-Monthly Meter Charges** | | | | | | | | |
| Customer Charges | $ - | $ 140 | $ - | $ - | $ - | $ 140 | $ - | **$ 281** |
| Capacity Charges | - | 572 | - | - | - | 18,317 | - | **18,890** |
| **Total Revenue from Bi-Monthly Meter Charge** | **$ -** | **$ 713** | **$ -** | **$ -** | **$ -** | **$ 18,458** | **$ -** | **$ 19,171** |

1. Meter Count is distinct accounts from Jan-Dec 2024. BHDVWA charges monthly rates, but bills bi-monthly.
   Source files: *Combined Billing.xlsx*
2. Source file: *AWWA Manual M6, "Water Meters - Selection, Installation, Testing and Maintenance",* Table 5-3.
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.

**TABLE 27**

**Proposed Rates - Net Revenue Requirements (60% Fixed / 40% Variable)**

| Customer Classes | Number of Meters [1] | Water Consumption (hcf/yr.) [1] | Commodity Assigned Costs | Capacity Assigned Costs | Additional Supply Costs [2] | Fixed Costs to Recover from Vol. Charges (A) | Target Rev. Req't from Vol. Charges | Uniform Volumetric Rates ($/hcf) |
|---|---|---|---|---|---|---|---|---|
| Residential | 2,555 | 176,959 | $ 619,100 | $ 162,263 | $ - | | $ 781,363 | |
| Non-Residential | | | | | | | | |
| Agriculture | 53 | 2,367 | 8,280 | 2,352 | - | | $10,632 | |
| Commercial | 15 | 8,747 | 30,603 | 7,234 | - | | $37,837 | |
| Fire Meter | 4 | 47 | 166 | 163 | - | | $329 | |
| Total (Excluding Bulk) | 2,627 | 188,120 | 658,149 | 172,012 | - | | $ 830,161 | **$4.41** |
| Bulk Water (Collected from Vol. Rates) | 77 | 2,191 | 7,664 | 1,934 | - | 17,104 | 26,703 | **$12.19** |
| **Total** | **2,704** | **190,311** | **$ 665,814** | **$ 173,946** | **$ -** | **$ 17,104** | **$ 856,864** | |

1. Consumption by customer class for January 2024-December 2024. Source files: Combined Billing.xlsx
2. Additional water supply costs for Residential and Agriculture customers shown in Table 29.

**TABLE 28** ***Proposed Rates - Net Revenue Requirements (60% Fixed / 40% Variable)***

| Water Rate Schedule | Current Rates | Proposed Rates | | | | |
|---|---|---|---|---|---|---|
| | | 2/11/2026 | 1/1/2027 | 1/1/2028 | 1/1/2029 | 1/1/2030 |
| ***Fixed Meter Charges*** | | | | | | |
| Bi-Monthly Fixed Service Charges: | | | | | | |
| 3/4 inch | $72.27 | $77.76 | $81.18 | $84.75 | $88.48 | $92.37 |
| 1 inch | $72.27 | $77.76 | $81.18 | $84.75 | $88.48 | $92.37 |
| 1.5 inch | $130.27 | $143.80 | $150.13 | $156.74 | $163.64 | $170.84 |
| 2 inch | $199.88 | $223.05 | $232.86 | $243.11 | $253.81 | $264.98 |
| 3 inch | $385.51 | $434.38 | $453.49 | $473.44 | $494.27 | $516.02 |
| 4 inch | $594.32 | $672.13 | $701.70 | $732.57 | $764.80 | $798.45 |
| 6 inch | $1,174.38 | $1,332.54 | $1,391.17 | $1,452.38 | $1,516.28 | $1,583.00 |
| Bi-Monthly Fire Service Charges: | | | | | | |
| 3/4 inch | $35.81 | $59.40 | $62.01 | $64.74 | $67.59 | $70.56 |
| 1 inch | $35.81 | $59.40 | $62.01 | $64.74 | $67.59 | $70.56 |
| 2 inch | $83.23 | $164.34 | $171.58 | $179.13 | $187.01 | $195.24 |
| 3 inch | $165.12 | $345.61 | $360.82 | $376.70 | $393.27 | $410.57 |
| 4 inch | $315.97 | $679.52 | $709.42 | $740.63 | $773.22 | $807.24 |
| 6 inch | $703.86 | $1,538.15 | $1,605.83 | $1,676.49 | $1,750.26 | $1,827.27 |
| 8 inch | $1,221.05 | $2,682.99 | $2,801.04 | $2,924.29 | $3,052.96 | $3,187.29 |
| ***Commodity Charges*** | | | | | | |
| **Rate per hcf of Water Consumed:** | | | | | | |
| Residential Customers[1] | | | | | | |
| Tier 1 0-25 hcf | $3.55 | $4.41 | $4.61 | $4.81 | $5.02 | $5.24 |
| Tier 2 26+ hcf | $5.40 | NA | NA | NA | NA | NA |
| Commercial, Ag, Institutional, Construction, Fire & Other | $4.18 | $4.41 | $4.61 | $4.81 | $5.02 | $5.24 |
| Bulk Meters[2] | $9.16 | $12.19 | $12.73 | $13.29 | $13.87 | $14.48 |

1. Current rates are structured based on consumption tiers. Proposed rates are uniform based on total consumption.

2. Bulk Meters, including 1 inch and cash accounts have no fixed meter charge and are charged for usage based on commodity charges per hcf only. 2 inch and larger bulk meters are charged for the fixed meter charge and usage based on the commodity charge.