



Mapleton Water District
Water Rate Study
Final Report – October 2026
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Presented By: Tricia Kent

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Submittal Details

Final Report Date

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Executive Summary

The industry standard is to conduct a water rate study every five years to ensure revenues are covering expenses and costs are being applied to customer classes equally. Public entity water systems must ensure rate structures are consistent with current case law, which has specific guidance on what is considered fair and equitable ways to distribute costs to customers.

RCAC conducted this water rate study on behalf of Mapleton Water District (MWD) to establish rates that allow MWD to operate and maintain the water system for the next five years and collect the necessary reserves for emergencies and capital improvements. RCAC analyzed data for the fiscal years ending 2024 and 2025 and budgeted data for FYE 2026 and 2027 to set rates for FYE 2027 through FYE 2031.

Mapleton Water District requested a water rate analysis to evaluate the following primary areas:

- covering their operating and non-operating expenses
- making contributions to emergency and operating reserves
- continuing to make timely payments on their debt service

During the rate study analysis, RCAC found that current rates do not generate sufficient revenue to cover the expenses of the Water District. At the time of the study, Mapleton was planning to take on additional debt from Business Oregon for the rehabilitation of their water tanks. Both rate options provided look at the rates needed to cover all debt service, including a new loan with Business Oregon for \$372,284, which was modeled to begin repayment in 2028. Option 1 explores the rates needed to cover this loan if Mapleton Water District is awarded 50% principal forgiveness, which is the maximum that they could qualify for, given the type of loan they are pursuing. Option 2 explores the rates needed to cover the same loan mentioned above, but without principal forgiveness, which means the full amount of the loan would need to be repaid. These two scenarios explored the extremes of principal forgiveness that Mapleton Water District could potentially receive, but the actual amount of principal forgiveness will be based on funds available through Business Oregon at the time of loan signing.

RCAC recommends that Mapleton Water District:

- Adopt the rates from the option that best aligns with the principal forgiveness that they are awarded by Business Oregon for the rehabilitation of their water tank. If 50% principal forgiveness is awarded to Mapleton, then Option 1 is recommended. If no principal forgiveness is awarded, Scenario 2 is recommended.
- Pursue a rate structure that ensures the long-term financial capacity of the water system while also assessing the affordability to customers.

- The U.S. Environmental Protection Agency (EPA) evaluates drinking water affordability by comparing the annual residential water bill to the median household income (MHI). Under EPA's longstanding affordability criterion, a combined water + wastewater bill becomes a concern at about 4% of MHI—often interpreted as roughly 2% of MHI for drinking water alone.
 - RCAC's rate model calculates affordability by taking the average residential bill for the water system and dividing it by the MHI.
- In Oregon, Business Oregon applies an additional screen for their Water/Wastewater Financing Program for financing subsidies. Applicants are eligible for financing subsidies if Business Oregon determines they meet the following criteria. First, the community's Median Household Income (MHI) is less than the state's MHI. Second the user rates meet or exceed a monthly affordability rate (currently defined as 1.25% of the municipality's MHI).
- Review revenues versus expenditures every year to ensure that the rates cover all costs to the system.
- Strive to be transparent. Successful utilities are those that are transparent to their customers regarding their day-to-day operations, including successes and struggles. Promote your services to your customers and continuously educate them on why it is necessary to raise and adjust rates.
- Consider increasing non-operational revenue. For example, CIP reserves could be moved to and maintained in the highest interest-bearing accounts available to offset inflation unless the cost of doing so is more than the interest earned on the account.
- Continue to pursue cost-saving measures such as refurbishment and rehabilitation of infrastructure to extend the useful life of components while building the reserves needed for their eventual replacement.

Introduction

About RCAC

Founded in 1978, RCAC provides training, technical and financial resources, and advocacy so rural communities can achieve their goals. Since 1978, our dedicated staff and active board, coupled with our key values: leadership, collaboration, commitment, quality, and integrity, have helped effect positive change in rural communities across the West.

RCAC's work includes environmental infrastructure (water, wastewater, and solid waste facilities); affordable housing development; economic and leadership development; and community development finance. These services are available to communities with populations of fewer than 50,000, other nonprofit groups, tribal organizations, farm workers, colonias and other specific populations. Headquartered in West Sacramento, RCAC's employees serve rural communities in 13 western states and the Pacific islands.

This rate study was funded by the EPA, for which RCAC is a Technical Assistance Provider. This study was provided at no cost to the Mapleton Water District due to their distinction as a disadvantaged community.

Purpose of a Rate Study

An accurate and useful rate analysis not only identifies the total annual revenue required by a utility to conduct its normal day-to-day operations, but it also anticipates and plans for future operating and capital needs. Furthermore, the analysis attempts to determine whether the projected revenue under existing rates will satisfy those needs. The primary objective of this process is to ensure that the utility can obtain sufficient funds to develop, construct, operate, maintain, and manage its water system on a continuing basis, in full compliance with federal, state, and local requirements.

Governing Body Responsibilities

Governing body responsibilities for the water system include maintaining sufficient revenue and reserves to provide for ongoing maintenance for the foreseeable future. The ultimate responsibility of the governing body is to ensure preserved public health and compliance with environmental regulations.

All findings and conclusions of this rate study are RCAC's professional assessment and are not a directive for action to the community. Whereas RCAC strongly recommends its finding to the community, the governing body must act in accordance with the water system's governing documents as well as state and federal laws to enact RCAC recommendations in whole or in part.

Disclaimer

The findings, recommendations and conclusions contained in this rate analysis are based on financial information provided to RCAC by the water system. Although reasonable care was taken to ensure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein. Any action taken on the basis of such findings, recommendations or conclusions is undertaken at the discretion of the water system. In no event will RCAC or its partners, employees or agents be liable for any decision made or action taken in reliance on the information contained in this analysis.

Guiding Principles in a Rate Study

Rates should be:

- **Sustainable** - Rates should cover the costs of the system to provide safe drinking water in the foreseeable future. This includes operations, repairs, interest, loan principle, capital replacement, and all other costs related to providing safe drinking water.
- **Fair** - Rates should be fair to all rate payers. While the costs should not exceed the costs of providing the service, they do need to capture the true costs of service. Low rates for current customers will require high rates for future customers.
- **Equitable** - Each class (or type) of customer is paying what is rightfully its share of the costs.
- **Justifiable** - Rates must be based on the actual needs of the water enterprise system. The water enterprise system expenses and revenue should be tracked separately from other funds.
- **Water conservation** - Water conservation is a key element of rate studies. Clean and safe water is limited, and inappropriate use of this resource negatively impacts community members.
- **State or funder-specific requirements** – Some water systems may have state or funder requirements to maintain certain financial indicators and reserve levels. Regardless of any requirements, the governing body is obligated by its responsibilities to provide for sufficient reserves and long-term sustainability.

Rate Setting Process

A water rate study typically consists of three to four main components:

- **Revenue Requirement** – This component calculates the total revenue needed to cover the utility's operating costs and debt obligations.
- **Cost of Service Analysis** – This component evaluates the cost allocations associated with providing water services, including fixed and variable costs. It ensures that rates are aligned with the actual way a water system incurs costs when providing water service.
- **Rate Design and Rate Setting** – This step involves determining how to structure the rates based on the cost-of-service analysis. It considers factors like customer classes (residential, commercial, etc.), water usage patterns, and equity, aiming to create a fair and sustainable rate system. Based on this, the appropriate rates are set to ensure financial stability and regulatory compliance.

Together, these components help ensure that a water system can provide reliable service through fair and equitable rates while maintaining financial sustainability.

RCAC uses a cash-needs approach to develop revenue requirements to ensure there is sufficient revenue to recover total cash requirements for the 5-year period of this rate study. This approach uses a format very similar to how many water systems develop an annual budget. While there are

several methods to allocate costs, since RCAC mainly works with small, disadvantaged water systems, it is typical for RCAC to use a fixed vs variable cost allocation. The revenue requirement approach and cost allocation methodology used in this rate study can be found in the Rate Design and Options Section under Key Assumptions.

Water System Basic Statistics

Community

The Mapleton Water District is located in the unincorporated community of Mapleton in western Lane County, Oregon. This area is known for its beautiful hiking trails and views of the Siuslaw River



Mapleton Water District main office

This area measures just 0.9 square miles and has a population of about 649. According to the US Census, the water system has an estimated median household income (MHI) of \$56,875.

System Description

The Mapleton Water District is a public water system classified as a Community Water System and operates as a public entity.

The water system uses surface water from Berkshire Creek. They treat the water using filtration, microscreening, and disinfection. Water is stored in two 300,000-gallon tanks and delivered to customers over 58,760 feet of distribution line.

Mapleton Water District is working to make updates to their system, and seeking out their funding options to facilitate these updates. Some funding has already been secured, such as a loan from Business Oregon, for improvements to their treatment plant. Repayment on this loan began in 2026. Additional improvements are planned on their two 300,000-gallon storage tanks in the coming year, also funded by Business Oregon. The repayment of this loan was analyzed in this rate study, and was modeled to begin in 2028.

Current Water Rate Structure

The current rates were adopted via Resolution 2025-15 in October 2025, setting rates from that day forward. The current rate structure for the water system includes a base rate and a uniform usage rate. There are three customer classes: Residential, Non-Residential, and Residential 2 on 1 meter. All customers pay the same usage rate of \$0.10 per cubic foot. The current rate structure can be seen in Exhibit A.

The affordability of these rates for the average residential customer is 2.22%, as a measure of the percent of the average residential customer's annual income that goes toward paying the average annual residential water bill in the water system.

Customer Water Use Statistics

Water use can vary between months, meter size, and customer class. In the data analyzed, Mapleton Water System has water usage that ranged from 97,279 cubic feet in March 2026 to 209,781 cubic feet in July 2025. Water usage trends can be seen in Exhibit B.

Future Population and Usage Projections

The United States Census shows a growth rate in the area as -.4% from 2020 to 2025.

Financial Condition and Analysis

Current Financial Policies

The financial policies of a public water system play a crucial role in ensuring the system's sustainability and effectiveness. These policies provide a framework for budgeting, revenue generation, expenditure control, debt management, and financial reporting. They help maintain financial stability, promote transparency, and ensure that the water system can meet current and future needs. By adhering to these policies, a public water system can effectively manage its resources, maintain the trust of its stakeholders, and continue to provide reliable and high-quality services to the community.

The policies reviewed by RCAC include Resolution 2025-15 which set current water rates, 2025-4 which set policy for overdue bills, 2026-2 which allowed for shut off of delinquent accounts, and 2026-10 which established a separate capital project fund.

Current Financial Indicators

Water Fund Balance

The water fund balance as of June 2026 is \$160,000. The water fund balance can be made up of cash, investments, and other liquid assets. This balance is kept in one account.

Operating Cash Flow

The operating cash flow for the Mapleton Water District has shown consistent losses over the past three fiscal years. Even greater losses are anticipated in FY 2026, due to an increase of \$44,240 in debt service payments to Business Oregon beginning this year. This loan was for improvements to the distribution system and is separate from the anticipated loan the system plans to take on, which was analyzed in this rate study. This trend indicates that revenues do not cover expenses. Additionally, the water system was not fully funding reserves. Underfunding reserves is not considered a financially sustainable method for managing a water system.

Financial Ratios

There are several financial indicators that can provide insight into the financial health of a water system. A financial indicator analysis was conducted on the most recent available audited financial statements, 2025. The results of the analysis are:

- **Quick ratio** - measures the ability of a company to use its near cash or quick assets to extinguish or retire its current liabilities immediately. A number greater than one is considered good.

$$\text{Quick Ratio} = \frac{\text{Cash} + \text{Cash Equivalents}}{\text{Current Liabilities}}$$

The Mapleton Water District quick ratio is 6.46.

- **Debt ratio** - indicates the percentage of a company's assets that are provided via debt. A number above 0.4 may hinder the ability of the system to get a loan. Too low of a number may mean that the system isn't utilizing the potential benefits that come from debt-financing such as the completion of larger projects while providing ratepayers with rate stabilization benefits.

$$\text{Debt Ratio} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

The Mapleton Water District debt ratio is .27.

Revenue Requirement

A revenue requirement for a water system refers to the total amount of money a utility must collect from its customers to cover all its costs. This includes operating expenses, taxes, debt payments, and costs to replace capital assets.

Current Budget

The objective of a budget is to ensure that the utility generates adequate revenue to cover the anticipated costs as they occur. The basic components of the budget include combined cash balances, operating and non-operating revenue, operation and maintenance expense, debt service (principal and interest payments) on borrowed funds, capital costs, reserves, and other cash payments (such as payments in lieu of taxes). Because debt covenants may impact the cash needs of the utility, it is also important to examine these restrictions as well.

A water system should develop and adopt an annual budget every fiscal year prior to the start of the fiscal year. The Mapleton Water District provided actuals for 2024 and 2025 and an adopted budget for 2026 and 2027. The District at the time of this rate study combined water sales revenue with other resources, including funds received from grants and loans and streetlight revenue. Additionally, operating expenses were combined with capital outlay costs that were being funded by said grants and loans. It was recommended that a capital projects fund be established instead to maintain cleaner, more transparent bookkeeping, which was adopted via Resolution 2026-10 in late 2026. It is recommended that streetlight revenue and expenses be managed as a separate enterprise to maintain the most transparent and accurate bookkeeping.

Over the past two year, revenues have not covered expenses. In 2024 and 2025, the utility operated at a net loss of over \$67,000 and \$29,000, respectively. It is anticipated that this loss will increase in 2026 to over \$116,000 with its added debt service payments and other expenses. Additionally, the water system was not fully funding reserves during these years. Underfunding reserves is not considered a financially sustainable method for managing a water system.

The actuals and current budget can be seen as part of the rate study budget projections in Exhibit D.

Current Dedicated Reserves

Reserves are an accepted way to stabilize and support a utility's fiscal management. Small systems usually fund the operating expenses but often do not consider putting money aside for a specific upcoming financial need or project, or for an amount that can be used to provide rate stabilization in years when revenues are unusually low, or expenditures are unusually high. The rationale for maintaining adequate reserve levels is twofold. First, it helps to ensure that the utility will have adequate funds available to meet its financial obligations in times of varying needs. Second, it provides a framework around which financial decisions can be made to determine when reserve balances are inadequate or excessive and what specific actions need to be taken to remedy the situation.

Utility reserve levels can be thought of as a savings account. Reserve balances are funds that are set aside for a specific cash flow requirement, financial need, project, task, or legal covenant. Common reserve balances are established around the following four areas: operating reserve, capital improvements and replacement, emergency, and debt service reserve. These balances are maintained to meet short-term cash flow requirements, and at the same time, minimize the risk associated with meeting financial obligations and continued operational needs under adverse conditions.

The annual reserve goals can be seen in the general & administrative expenses in Exhibit D.

Operating Reserve

Operating reserves are established to provide the utility with the ability to withstand short-term cash flow fluctuations. There can be a significant length of time between when a system provides a service and when a customer pays for that service. In addition, a system's cash flow can be affected by weather and seasonal demand patterns.

Because of potential delays in collecting payment, many utilities attempt to keep an amount of cash equal to at least 90 days or 25 percent of their annual cash O&M expenses in an operating reserve to mitigate potential cash flow problems. In discussions with the water system, it was determined that the goal would be 1.5 billing cycles. This money will be set aside over ten years.

Emergency Reserve

Emergency reserves are intended to help utilities deal with short-term emergencies that arise from time to time, such as main breaks or pump failures. The appropriate amount of emergency reserves will vary with the size of the utilities and should depend on major infrastructure assets. An emergency reserve is intended to fund the immediate replacement or reconstruction of the system's single most critical asset, an asset whose failure will result in an immediate water outage or threat to public safety. In discussions with the water system, it was determined that \$300,000 would be adequate and that this money would be set aside over ten years.

Capital Replacement Reserve

A capital replacement reserve (also called a repair and replacement reserve) is intended to be used for replacing system assets that have become worn out or obsolete. Unlike the emergency reserve fund, these reserves are intended to be used for planned replacements and improvements. Annual depreciation is frequently used to estimate the minimum level of funding for this capital reserve. But it is important to understand that depreciation expense is an accounting concept for estimating the decline of an asset's useful life and does not represent the current or future replacement cost of that asset.

To initiate a capital improvement plan, a small water or sewer system will start with a list of assets that includes the remaining service life, theoretical replacement costs in today's dollars, and the remaining service life. It then calculates the monthly and annual reserve that must be collected from each customer to fully capitalize the replacement cost of each asset. In reality, the assets will fail and be replaced gradually, but the replacement cost of water system assets is often a shock to small systems that are struggling to keep rates reasonable. No capital replacement reserve target was set for this rate study. Mapleton Water District currently sources grants and loans for the funding of capital improvement projects. However, it should be noted,

- Loans – Obtaining loans will come with debt service payments and debt reserve requirements that may increase the expenses in future years
- Grants - During this current economic climate, it is not advised to assume grants in the budgeting process

Debt Payments and Reserve

Water utilities that have issued debt to pay for capital assets will often have required reserves that are specifically defined to meet the legal covenants of the debt. Normally, debt service reserve represents an amount equal to at least one full annual loan payment and can be accumulated to this level over a period of 5 to 10 years.

The Mapleton Water District has long-term debt with Business Oregon totaling \$700,000. This loan has a 30-year term and 1% interest, making their annual payment \$55,200. Mapleton Water District is making payments for this loan out of their water fund. There is no debt service reserve requirement for this loan.

Analysis and Recommendations for Financial Condition

It is recommended that the Mapleton Water District adopt four financial policies to support the management of its water utility.

- The first policy is Cost of Service Pricing to set water rates to match the actual cost to treat, pump, and deliver water.
- The second policy suggestion is Reserve Fund Targets to establish reserves that will help the utility cover its needs. An example of a reserve fund target would be \$50,000 for a dedicated emergency fund, which could be used to repair or replace components in the event of an emergency.
- The third policy recommendation is Regular Rate Studies. This policy calls for periodic review of rates, which would further help to ensure that the system is generating enough revenue to cover its costs.
- The fourth policy recommendation is an Inflation Adjustment Provision, which is written into the city's municipal code and allows for automated adjustments to rates based on an index. This policy would help the district cover its costs as they increase annually with inflation.

Regarding capital improvements, Mapleton Water District should consider the cost of pursuing grants or loans for making improvements to their system. Both approaches take staff time and financial resources. Additionally,

- Loans – Obtaining loans will come with debt service payments and debt reserve requirements that may increase the expenses in future years
- Grants - During this current economic climate, it is not advised to assume grants in the budgeting process

A rate increase is recommended to ensure that Mapleton Water District can cover all their costs included funding reserves. Several rate options are included in this report to provide a range of pricing structures to allow the governing body to select the most fair, sustainable, and financially viable approach for their community.

Cost-of-Service and Rate Design

Fixed and Variable Costs

Water must always be available to customers, whether the customer is using water or not. A large share of water system costs is associated with bringing the first drop of water to the customer's tap, regardless of whether any water is used. Other costs occur as water is used by customers. Fixed costs are those that must be recovered by a water system to ensure that drinking water is available to its customers, while variable costs are more directly related to how much water is being pumped, treated, stored, and distributed. The identification of costs as fixed costs, variable costs, or some percentage of both is a determination that each utility must make for itself. It is done by reviewing the budget and each line item closely. The allocation for Mapleton Water District is in Exhibit F.

Fixed costs are typically collected through a base rate, which is a fixed monthly charge. Variable costs are typically collected through a usage rate, which is a dollar amount per unit of water used by the customer.

Base Rate and Usage Rates

Base Rates

Fixed costs are typically collected through a base rate. These base rates can be calculated using several different methods, including:

- Flat base rate – all customers pay the same amount regardless of service connection size.
- American Water Works Association Meter Ratios - standard meter ratios that are used to estimate the equivalent cost of service based on the capacity of a water meter.

Meter Size	Operating Capacity (GPM)	Meter Ratio
1/2"	15	0.75
5/8"	20	1.00
3/4"	30	1.50
1"	50	2.50
1.5"	100	5.00
2"	160	8.00
3"	320	16.00
4"	500	25.00
6"	1000	50.00
8"	1600	80.00
10"	2400	120.00
12"	3375	168.75

- Meter ratios based on actual usage seen in water system – custom meter ratios that are calculated on historical usage data of different meter sizes.

Usage Rates

Variable expenses are typically collected through the usage rate. These usage rates can be calculated using several different methods including:

- Uniform usage rate - customers are charged a single, constant rate for each unit of service.
- Tiered usage rate - the cost per unit of service changes as a customer's consumption exceeds certain thresholds or "tiers." Variations of tiered rates include increasing block rate, uniform block rate, and decreasing block rate.

Assumptions

In a rate study, assumptions are critical because they help frame the calculations and projections that determine pricing or rates. Assumptions details used in this rate study can be seen in Exhibits C-F and include:

Financial Assumptions

- **Return on Investment Rates** – Capital improvement reserves are often in a savings account that accrues interest. It is assumed this rate of return can reduce the annual reserve required from water sales for additional capital assets.
- **Past Inflation Rates** - Allows the current cost of assets to be calculated when only historic costs are available.
- **Future Inflation Rates** – Allows the future cost of asset replacement to be calculated as well as helps to project the budget forward.
- **Future Loan Rates and Fees** – Important for calculating the debt service payment that will be required if a water system chooses to fund assets in need of replacement over the next 5 years through loan.
- **Existing Debt** – Annual payment and reserve requirements for current debt
- **Existing Reserves** – The water fund balance which can be made up of cash, investments, and other liquid assets. Typically, operating reserves are in a checking account and capital reserves are in an interest-bearing savings account
- **Reserve Targets** – established dollar amounts to maintain in operating, emergency, debt, and capital reserves along with the number of years to build to this amount
- **Median Household Income** – average income for residential customers, this typically comes from the U.S. Census

Usage and Billing Assumptions

- **Conservation Factor:** This factor accounts for the expected reduction in water usage that may occur following a rate increase. Studies by the U.S. Department of the Interior estimate the price elasticity of water demand at approximately -0.1%, indicating relatively low sensitivity to price changes. However, based on RCAC's experience working with rural and disadvantaged communities, a broader range of -1.0% to -5.0% may be applied to better reflect local conditions and customer response. This factor may also be adjusted to incorporate system-specific considerations, such as conservation efforts, drought conditions, or known changes in water use behavior.
- **Community Growth Factor** – Growth factor to account for an increasing or decreasing population in the area. This data can come from the U.S. Census, the water system's master plan, or other source
- **Receivable Write-Offs** – RCAC assumes a 0.2% write-off, unless otherwise stated by the water system. This write-off accounts for non-payment of water bills

Capital Improvement Plan Assumptions

- **Default Funding Assumptions** – The funding assumptions made to many of the capital assets in the model. While it is always recommended to fund with 100% cash, RCAC will often adjust these to assist with affordability while giving a roadmap to smaller water systems on next steps in their capital improvement plan. During this current economic

climate, it is not advised to assume grants in the budgeting process. Also understand that applying for grants or loans will take staff time and financial resources.

- **Capitalization Threshold** - Any asset purchased below this value is not included in the CIP. It assumed that this purchase was included in the annual maintenance budget. This is usually a policy decision by the water board and varies based on the size of the water system. RCAC will often use \$5,000 if the water system has no threshold established.
- Short-Lived Assets – Some funders only require water systems to create reserves for short-lived assets (5-15 year useful life).
- **Customized Assumptions**
- **Budget projections** – While future inflation is a tool used to project many budget line items forward. A detailed review of each budget was completed and line items that needed further adjustments were changed. No custom budget assumptions were used for Mapleton Water District.
- **Capital Improvement Plan** – While default funding assumptions can help a small water system see its dependence on obtaining grants and loans and allow it to begin to plan. A detailed review of the funding assumptions was completed and line items that needed further adjustments were revised. No custom CIP funding assumptions were used for Mapleton Water District.
- **Cost Allocation** – RCAC uses the identification of fixed and variable costs to allocate costs to base rates and usage rates. The identification of fixed and variable costs is best left to the water system to identify. RCAC does advise that any debt service be considered a fixed cost and that many of the pumping and chemical costs be assigned to variable. RCAC relied on the water system to allocate their fixed and variable costs.

Rate Options and Recommendation

This rate study has analyzed various pricing structures for the water utility, taking into account the financial needs of the system, equitable distribution of costs among customers, and the promotion of water conservation. After careful evaluation, the recommended rate options are included in this report to allow the governing body to select the most fair, sustainable, and financially viable approach for their community.

Both rate options looked at the rates necessary to cover Mapleton Water District's expenses, establishing and contributing to reserves, and debt service. The system plans to take on a \$372,284 loan with Business Oregon for the rehabilitation of their two 300,000 gallon water tanks. Option 1 modeled the rates needed to repay this loan if they are awarded 50% principal forgiveness, which is the maximum potential amount they could receive. This places the total loan at \$186,142, with annual payments being \$7,213. Option 2 assumes the system is not awarded any principal forgiveness, making the annual payments \$14,425. Option 3 modeled the impact on the financials of the system if current rates were maintained for the next five years. Further explanation of the rate options can be found below; rate tables and results can be seen in Exhibit G.

When considering the various rate options presented below, it is crucial for the governing body to take into account not only the immediate financial implications but also the long-term sustainability and fairness of each approach. The following recommendation aims to guide the selection process and ensure that the chosen rate structure supports the community's needs while promoting fiscal responsibility and transparency.

RCAC values affordability when analyzing rate options for small water systems. However, governing body responsibilities for the water system include maintaining sufficient revenue and reserves to provide for ongoing maintenance for the foreseeable future. The ultimate responsibility of the governing body is to ensure preserved public health and compliance with environmental regulations.

At the time of writing this report, it is still unconfirmed what the funding package from Business Oregon will look like for the rehabilitation of Mapleton Water District's water tanks. RCAC recommends that the District adopt the rates that best reflect the principal forgiveness they are awarded. If the system is awarded less than 50% principal forgiveness, implementing the rates suggested in Option 2 will allow them to ensure that all costs are covered.

Rate Option 1

This Option looks at the rates necessary to cover Mapleton Water District's expenses, contributions to reserves, and debt service. Option 1 assumes 50% principal forgiveness for a \$372,284 loan with Business Oregon for the rehabilitation of their two 300,000 gallon water tanks. This places the total loan at \$186,142, with annual payments being \$7,213. This amount of principal forgiveness was modeled because it is the maximum amount that Mapleton Water District could qualify for, based on the type of loan they are pursuing.

This option was also created with the goal of making full contributions to reserves by year five to reduce the burden on customers.

Rate Option 2

This Option also looks at the rates necessary to cover Mapleton Water District's expenses, contributions to reserves, and debt service. Option 2 assumes no principal forgiveness for a \$372,284 loan with Business Oregon for the rehabilitation of their two 300,000 gallon water tanks. For this Option, annual payments were modeled at \$14,425. This amount of principal forgiveness was modeled because it is the lowest possible amount that Mapleton Water District could potentially receive. The actual amount of principal forgiveness awarded to the District will be determined by the amount of funding that Business Oregon has available at the time of loan signing.

This option was also created with the goal of making full contributions to reserves by year five to reduce the burden on customers.

Rate Option 3

This Option shows the impact on the financials of the Mapleton Water District if current rates are maintained over the next five years. This option is not recommended by RCAC, but is included for informational purposes and to demonstrate the potential financial impacts of maintaining current rates and the resulting risks to long-term financial sustainability.

Implementation Remarks & Conclusion

Recommendations for the current financial condition and rate option selection have been discussed. Below are some additional recommendations for Mapleton Water District.

General Implementation Advice

Key points to remember with this rate adjustment are:

- Every year, revenues versus expenditures should be reviewed to ensure that the rates cover all costs to the system.
- Rates should be reviewed every 5 years or whenever the water system is at risk of expenditures exceeding revenue.
- Successful utilities are those that strive to be transparent. In day-to-day operations, the Mapleton Water District should strive to promote its services (highlights and the low points) and continuously educate residents on why it is necessary to raise and adjust rates.
- If possible, CIP reserves should be moved to and maintained in the highest interest-bearing accounts available to offset inflation unless the cost of doing so is more than the interest earned on the account.

Conclusion

In conclusion, this rate study provides an effective approach to maintaining the financial health of the water system, while ensuring equitable access to clean, safe drinking water for all customers. The recommended rates will allow the utility to continue providing high-quality service in a financially sustainable manner, meeting the needs of the community for years to come.

The attached Exhibits A through G provide detailed information and analysis supporting the findings and recommendation of this water rate study. Each exhibit has been prepared to illustrate the key components of the study, including cost of service, customer demand, rate structure options, and the financial impact of the proposed rates. These exhibits are designed to offer transparency and allow for a clear understanding of the methodologies used to determine the recommended rate structure.

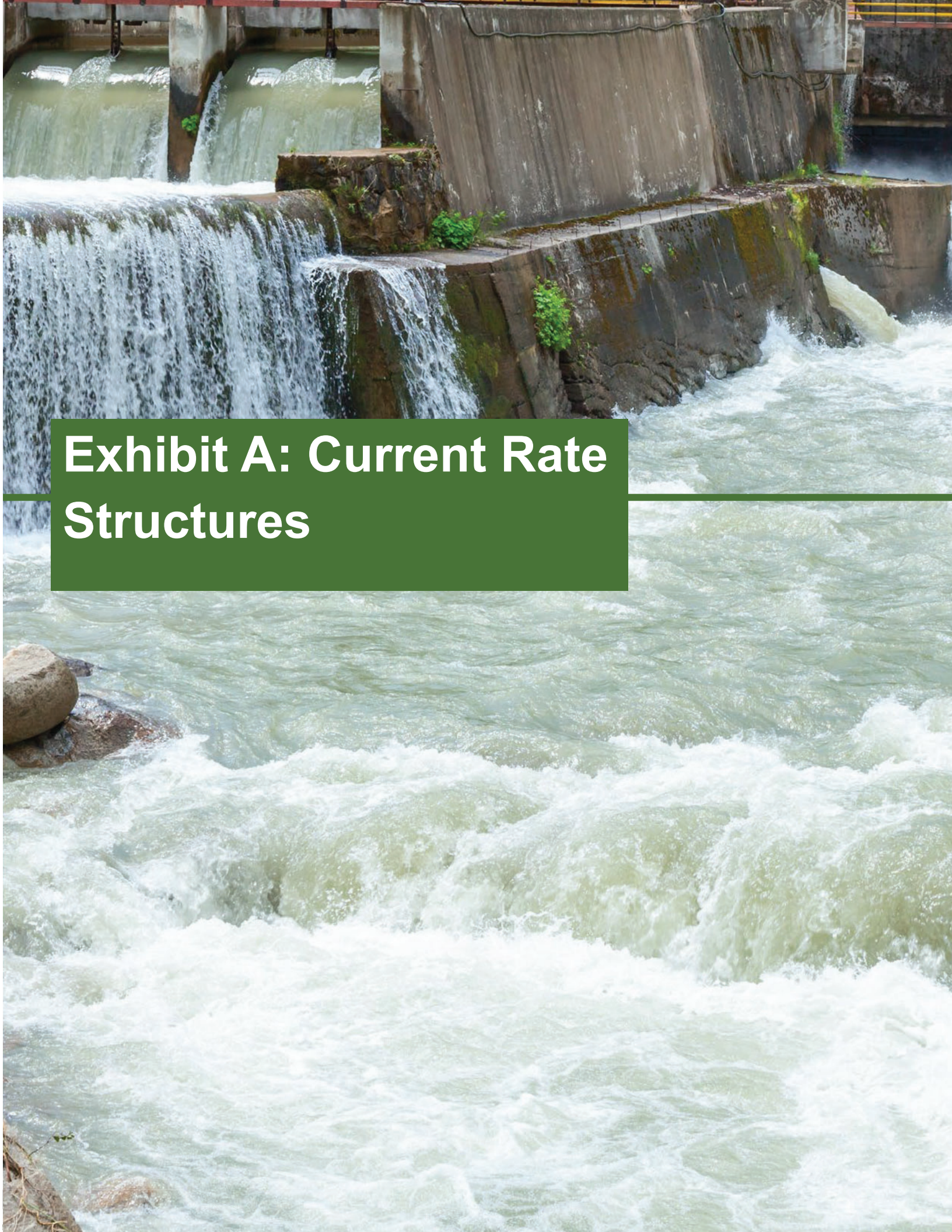


Exhibit A: Current Rate Structures

Current Base Rates			
	Customer Class Schedule (see prior table)		
Meter Size	A	B	C
3/4	\$54.00	\$54.00	\$66.00
1.000	\$54.00	\$102.00	
1.500		\$102.00	
2.000		\$117.00	
3.000		\$162.00	
4.000		\$192.00	

Current Customer Classes			
Class ID	Name of Class	Rate Structure	Schedule
1	Residential	Uniform Block	A
2	Non-residential	Uniform Block	B
3	Residential 2 on 1 Meter	Uniform Block	C

Current Uniform Usage Rate			
	Customer Class Schedule (see prior table)		
Unit	A	B	C
\$/CF	\$0.10	\$0.10	\$0.10

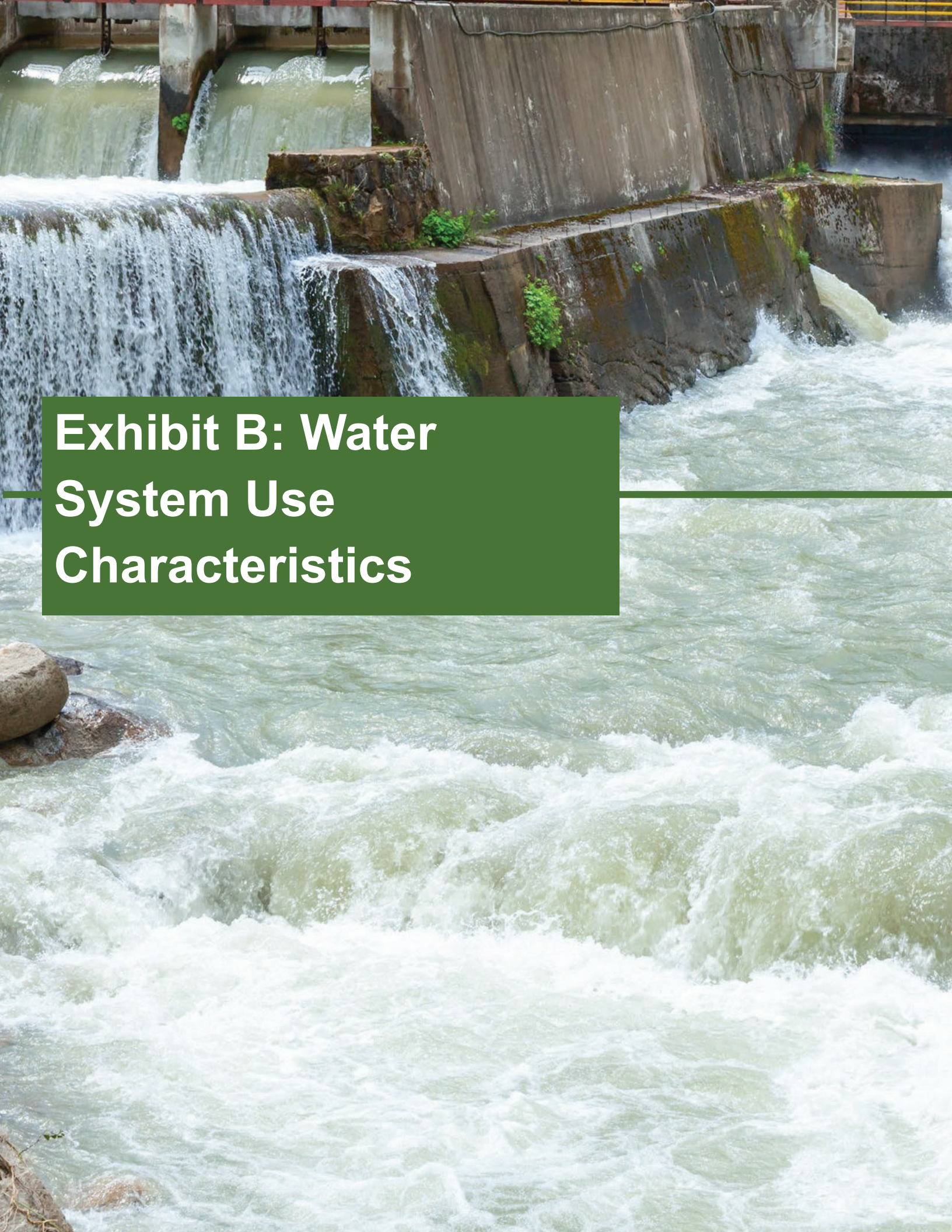


Exhibit B: Water System Use Characteristics

Sales in 2025-2026 by Meter Size												Billing Cycle				M
Meter Size	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun				
0.750	182579	159800	137990	101989	118947	109202	134728	107468	89688	104568	115516	147515				
1.000	17737	12725	8950	6099	6343	5447	6397	5861	5793	5949	5867	6628				
1.500	0	0	0	0	0	0	0	0	0	0	0	0				
2.000	9465	5668	5476	4159	1909	1815	1812	1811	1811	4813	9867	9632				
Sales in 2025-2026 by Customer Class																
Current Class ID				Name of Class									Total Annual Usage (CF)			
1				Residential									1,505,105			
2				Non-residential									313,891			
3				Residential 2 on 1 meter									0			



Exhibit C: Assumptions

Key Assumptions									
Financial Assumptions									
Inflation and Loan Rates									
Return on Invested Funds			0.50	%					
Past Inflation			3.50	%					
Future Inflation			4.00	%					
Future Loan Interest Rate			2.00	%					
Future Loan fees, legal, costs			1.00	%					
Existing Debt									
Description	Annual Payment	Maturity	Reserve Required	Reserve Allocated	Make Up Period				
Y21004	\$55,200	2054	\$0	\$0					
Total	\$55,200		\$0	\$0					
Existing Reserves									
Debt Reserve	\$0								
Operating Reserve	\$0								
Emergency Reserve	\$0								
Capital Reserve	\$0								
Total	\$0								

Reserve Targets						
	Amount	Make Up Period	First Year Reserve Addition	Excess funds to be transferred to CIP	Goal	
Debt Reserve	\$0		\$0	\$0	As per lending agreement(s)	
Operating Reserve	\$48,992	10	\$4,899	\$0	1.5 times the expenses during a billing cycle	
Emergency Reserve	\$300,000	10	\$30,000	\$0	Critical equipment replacement cost	
Available for Capital Reserve	\$0					
Median Household Income						
MHI	\$56,875		MHI Source	US Census		
Usage and Billing Assumptions						
Growth of Consumption over Base year						
		Year 1	Year 2	Year 3	Year 4	Year 5
Conservation Factor		0.0%	0.0%	0.0%	0.0%	0.0%
Community Growth Factor		0.0%	0.0%	0.0%	0.0%	0.0%
Total Consumption Adjustment		0.0%	0.0%	0.0%	0.0%	0.0%
Receivable write off						
Percent of Billing		0.20%	0.20%	0.20%	0.20%	0.20%
Billing Details						
Unit of Service	1	CF				
Billing Cycles	Currently	Proposed				
Billing Cycle	M	M				
Billings per year	12	12				

Capital Improvement Planning Assumptions						
Default Funding of Asset Replacements						
Replacement Value	From	To	Cash	Grant	Loan	
	\$0	\$20,000	25%	0%	75%	
	\$20,001	\$100,000	25%	50%	25%	
	\$100,001	\$500,000	25%	50%	25%	
	\$500,001	\$9,999,999	5%	25%	70%	
	\$10,000,000	\$99,999,999	2%	25%	73%	
Capitalization Threshold						
Capitalization Threshold	\$1,000		Any asset purchased below this value is not included in the CIP. It assumed that this purchase was included in the annual maintenance budget.			
Short-Lived Assets						
If you want to reserve for Short-Lived Asset only, how many years is your definition of a "Short-Lived Asset?"			15	(USDA-RD is 5 years. Some states require 15 years.)		



Exhibit D: Rate Study Budget Projections

Key:		Other Notes: This Budget					Standard Assumptions				
Line items that vary based on rate options							Inflation Factor (%)		4.00		
Line items that vary from standard assumptions							Loan Interest Rate (%)		2.00		
Budget Projections for Mapleton Water District											
	Actual	Actual	[Budgeted]		Projected	Projected	Projected	Projected	Projected	Projected	Projected
EXPENSES AND SOURCES OF FUNDS											
OPERATIONS & MAINTENANCE EXPENSES											
	2024	2025	2026	% Belonging to Water	2027	2028	2029	2030	2031		
Salaries & Wages / Operations	\$36,441.66	\$35,543.62	\$66,040.00	100%	\$84,000.00	\$88,200.00	\$92,610.00	\$97,240.50	\$102,102.53		
Wage Dispute	\$23,823.68	\$17,000.04	\$17,000.00	100%	\$17,000.00	\$17,850.00	\$0	\$0	\$0		
Payroll Taxes	\$10,936.19	\$7,868.96	\$12,000.00	100%	\$13,616.00	\$14,296.80	\$15,011.64	\$15,762.22	\$16,550.33		
Unemployment	\$0.00	\$0.00	\$500.00	100%	\$514.50	\$540.23	\$567.24	\$595.60	\$625.38		
Workers Compensation	\$1,488.28	\$2,700.54	\$3,000.00	100%	\$3,500.00	\$3,675.00	\$3,858.75	\$4,051.69	\$4,254.27		
Overtime	\$20,979.76	\$1,933.89	\$2,000.00	100%	\$2,058.00	\$2,160.90	\$2,268.95	\$2,382.39	\$2,501.51		
Retirement	\$11,174.44	\$10,553.70	\$43,800.00	100%	\$32,931.00	\$34,577.55	\$36,306.43	\$38,121.75	\$40,027.84		
Part Time Wages	\$49,991.77			100%	\$-	\$-	\$-	\$-	\$-		
Administration		\$39,441.15	\$46,800.00	100%	\$46,800.00	\$49,140.00	\$51,597.00	\$54,176.85	\$56,885.69		
Operating Supplies	\$12,748.90	\$15,582.57	\$10,000.00	100%	\$20,000.00	\$21,000.00	\$22,050.00	\$23,152.50	\$24,310.13		
Bank Charges			\$1,000.00	100%	\$2,700.00	\$2,835.00	\$2,976.75	\$3,125.59	\$3,281.87		
Office Supplies	\$5,486.35	\$6,886.83	\$2,000.00	100%	\$2,000.00	\$2,100.00	\$2,205.00	\$2,315.25	\$2,431.01		
Accounting/Auditing/Budget	\$11,640.00	\$15,550.00	\$20,000.00	100%	\$16,920.00	\$17,766.00	\$18,654.30	\$19,587.02	\$20,566.37		

Legal	\$16,105.2 ₆	\$14,130.1 ₅	\$10,000.00	100%	\$10,000.0 ₀	\$10,500.0 ₀	\$11,025.0 ₀	\$11,576.2 ₅	\$12,155.0 ₆
Insurance & Bond	\$6,215.00	\$6,966.00	\$7,500.00	100%	\$11,000.0 ₀	\$11,550.0 ₀	\$12,127.5 ₀	\$12,733.8 ₈	\$13,370.5 ₇
Misc Expense	\$7,350.17	\$20,484.2 ₅	\$2,000.00	100%	\$2,000.00	\$2,100.00	\$2,205.00	\$2,315.25	\$2,431.01
Maint & Repair	\$20,895.5 ₀	\$29,381.0 ₀	\$40,000.00	100%	\$30,000.0 ₀	\$40,000.0 ₀	\$42,000.0 ₀	\$44,100.0 ₀	\$46,305.0 ₀
Power	\$8,741.78	\$7,729.55	\$9,000.00	100%	\$9,000.00	\$9,450.00	\$9,922.50	\$10,418.6 ₃	\$10,939.5 ₆
Permits & Certifications	\$2,120.48	\$1,819.08	\$2,500.00	100%	\$2,500.00	\$2,625.00	\$2,756.25	\$2,894.06	\$3,038.77
Travel	\$841.96	\$2,858.56	\$3,000.00	100%	\$3,000.00	\$3,150.00	\$3,307.50	\$3,472.88	\$3,646.52
Telephone	\$4,450.05	\$3,966.07	\$4,200.00	100%	\$4,500.00	\$4,725.00	\$4,961.25	\$5,209.31	\$5,469.78
Water Samples	\$3,242.00	\$4,344.00	\$5,200.00	100%	\$7,000.00	\$7,350.00	\$7,717.50	\$8,103.38	\$8,508.54
Rent	\$5,534.00	\$4,410.00	\$4,500.00	100%	\$4,500.00	\$4,725.00	\$4,961.25	\$5,209.31	\$5,469.78
Backflow Test	\$0.00	\$1,175.00	\$1,400.00	100%	\$1,500.00	\$1,575.00	\$1,653.75	\$1,736.44	\$1,823.26
Vehicle Operations	\$4,335.39	\$4,933.79	\$5,000.00	100%	\$5,000.00	\$5,250.00	\$5,512.50	\$5,788.13	\$6,077.53
Water System Fuel		\$0.00	\$800.00	100%	\$800.00	\$840.00	\$882.00	\$926.10	\$972.41
Safety	\$166.71	\$282.06	\$1,000.00	100%	\$1,000.00	\$1,050.00	\$1,102.50	\$1,157.63	\$1,215.51
Budget Pub & Election	\$442.37	\$153.14	\$2,600.00	100%	\$2,600.00	\$2,730.00	\$2,866.50	\$3,009.83	\$3,160.32
Plant Management Services	\$7,047.50	\$8,400.00	\$8,400.00	100%	\$10,000.0 ₀	\$10,500.0 ₀	\$11,025.0 ₀	\$11,576.2 ₅	\$12,155.0 ₆
Dues	\$1,178.57	\$1,126.41	\$1,200.00	100%	\$2,000.00	\$2,100.00	\$2,205.00	\$2,315.25	\$2,431.01
Postage and Billing Supplies	\$510.00	\$540.80	\$3,500.00	100%	\$3,500.00	\$3,675.00	\$3,858.75	\$4,051.69	\$4,254.27
Software and IT Services	\$13,180.9 ₄	\$11,192.2 ₂	\$14,000.00	100%	\$18,000.0 ₀	\$18,900.0 ₀	\$19,845.0 ₀	\$20,837.2 ₅	\$21,879.1 ₁
Equipment	\$19,014.9 ₃	\$3,631.31	\$5,000.00	100%	\$20,000.0 ₀	\$21,000.0 ₀	\$22,050.0 ₀	\$23,152.5 ₀	\$24,310.1 ₃
Office and Computer Equipment	\$8,447.00	\$0.00	\$2,000.00	100%	\$2,000.00	\$2,100.00	\$2,205.00	\$2,315.25	\$2,431.01
Total Operation and Maintenance Expenses:	\$314,530.64	\$280,584.69	\$356,940.0 ₀		\$391,939.50	\$420,036.48	\$422,295.80	\$443,410.59	\$465,581.12

GENERAL & ADMINISTRATIVE EXPENSES									
	2024	2025	2026	% Belonging to Water	2027	2028	2029	2030	2031
Operating Reserve Funding					\$4,899.24	\$4,899.24	\$4,899.24	\$4,899.24	\$4,899.24
Emergency Reserve Funding					\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00
Debt Reserve Funding					\$0	\$0	\$0	\$0	\$0
Replacement of Existing Capital Assets					\$146,054.86	\$146,054.86	\$146,054.86	\$146,054.86	\$146,054.86
Replacement of Funded Project Assets					\$0	\$0	\$0	\$0	\$0
Reserves for Additional Capital Assets					\$0	\$0	\$0	\$0	\$0
Debt Service	\$15,760.00	\$15,760.00	\$60,000.00		\$55,200.00	\$55,200.00	\$55,200.00	\$55,200.00	\$55,200.00
Total General and Administrative Expenses:	\$15,760.00	\$15,760.00	\$60,000.00		\$236,154.10	\$236,154.10	\$236,154.10	\$236,154.10	\$236,154.10
TOTAL EXPENSES	\$330,290.64	\$296,344.69	\$416,940.00		\$628,093.60	\$656,190.58	\$658,449.90	\$679,564.69	\$701,735.22
Sales Revenue (Base + Usage)	\$262,973.09	\$266,995.79	\$300,000.00		Varies Based on Rate Option See Appendix G				
Uncollectable Receivables									

TOTAL REVENUE	\$262,973.09	\$266,995.79	\$300,000.00	\$262,973.09					Varies Based on Rate Option See Appendix G
NET LOSS OR GAIN:	\$(67,317.55)	\$(29,348.90)	\$(116,940.00)	\$(67,317.55)					Varies Based on Rate Option See Appendix G
NET CASH FLOW (Contribution to Reserves)	\$(67,317.55)	\$(29,348.90)	\$(116,940.00)	\$(67,317.55)					Varies Based on Rate Option See Appendix G



Exhibit E: Capital Improvement Plan

Qty	Key:	Notes:	Standard Assumptions																
			Line items that vary based on rate options	Inflation Factor (%)															
				Line items that vary from standard assumptions	Loan Interest Rate (%)														
					*Cost Type: H=Historic, C=Current, F=Future														
Capital Improvement Plan																			
Qty	Asset	Year Acquired	Unit Cost	Cost Type	% Belonging to Water	Estimated Historic Cost (Water only)	Normal Estimated Life	Current Age	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash	Fund with Grant	Fund with Loan	Existing Reserves	Annual Reserve Required		
1	Treatment Plant	2025	\$1,300,000	C	100%	\$1,272,700	50	1	\$1,300,000	49	50	\$5,428,903	0%	25%	100%	0	0		
	Full Treatment Plant Improvements					0							5%	25%	70%	0	4,792		
1	Pentair Ultraflex Skid	2025	\$308,000	C	100%	\$301,532	20	1	\$308,000	19	20	\$545,580	5%	25%	70%	0	1,300		
1	Filter/Separator	2025	\$46,412	C	100%	\$45,437	15	1	\$46,412	14	15	\$71,262	25%	50%	25%	0	1,147		
2	CL17 Chlorine Analyzer	2025	\$8,500	C	100%	\$16,643	5	1	\$17,000	4	5	\$19,612	25%	0%	75%	0	971		
1	Generator	2025	\$60,000	C	100%	\$58,740	25	1	\$60,000	24	25	\$122,613	25%	50%	25%	0	1,154		
1	Generator - Concrete Pad	2025	\$10,000	C	100%	\$9,790	25	1	\$10,000	24	25	\$20,435	25%	50%	25%	0	192		
1	Sodium Hypo Generation System	2025	\$22,805	C	100%	\$22,326	10	1	\$22,805	9	10	\$30,352	25%	50%	25%	0	742		
1	Intake Structure	1953	\$1,000,000	C	100%	\$212,391	40	73	\$1,000,000	-33	10	\$1,330,926	5%	25%	70%	0	6,506		
1	Raw Water Settling Basin	1987	\$2,500,000	C	100%	\$1,092,610	40	39	\$2,500,000	1	10	\$3,327,314	5%	25%	70%	0	16,266		
1	Tank #1 Welded Steel (300k gal)	1952	\$3,421,000	C	100%	\$711,332	75	74	\$3,421,000	1	10	\$4,553,096	5%	25%	70%	0	22,258		
1	Tank #2 Bolted Steel (300k gal)	1999	\$3,421,000	C	100%	\$1,928,794	75	27	\$3,421,000	48	50	\$14,286,367	2%	25%	73%	0	5,044		
1	Tank #1 Cathodic Protection	1986	\$80,000	C	100%	\$34,229	25	40	\$80,000	-15	5	\$92,293	25%	50%	25%	0	4,569		
1	Tank #2 Cathodic Protection	1999	\$80,000	C	100%	\$45,105	25	27	\$80,000	-2	5	\$92,293	25%	50%	25%	0	4,569		
1	1.5 HP Pump	1980	\$2,000	C	100%	\$753	15	46	\$2,000	-31	10	\$2,662	25%	0%	75%	0	65		
1	3 HP Pump	1980	\$5,000	C	100%	\$1,884	15	46	\$5,000	-31	10	\$6,655	25%	0%	75%	0	163		
1	15 HP Pump	1980	\$10,000	C	100%	\$3,767	15	46	\$10,000	-31	10	\$13,309	25%	0%	75%	0	325		
2	Pressure Vessel	2025	\$800	C	100%	\$783	15	1	\$800	14	15	\$1,228	25%	0%	75%	0	20		

1	Pump Station Structure	1999	\$ 352,000	C	100%	\$198,461	40	27	\$352,000	13	7	\$429,982	25%	50%	25%	0	15,128
13000	4 Inch and Smaller	1960	\$ 65	C	100%	\$208,216	75	66	\$845,000	9	10	\$1,124,632	5%	25%	70%	0	5,498
6040	6 Inch	1960	\$97	C	100%	\$144,366	75	66	\$585,880	9	10	\$779,763	5%	25%	70%	0	3,812
22120	8 Inch	1960	\$112	C	100%	\$610,465	75	66	\$2,477,440	9	10	\$3,297,288	5%	25%	70%	0	16,119
11400	10 Inch	1960	\$156	C	100%	\$438,215	75	66	\$1,778,400	9	10	\$2,366,918	5%	25%	70%	0	11,571
6200	12 Inch	1960	\$176	C	100%	\$268,882	75	66	\$1,091,200	9	10	\$1,452,306	5%	25%	70%	0	7,100
	Distribution Valves			100%									0%	0%	100%	0	0
2	1 Inch	1960	\$40	C	100%	\$20	40	66	\$80	-26	10	\$106	25%	0%	75%	0	Not Cap.
2	2 Inch	1960	\$60	C	100%	\$30	40	66	\$120	-26	10	\$160	25%	0%	75%	0	Not Cap.
15	4 Inch	1960	\$500	C	100%	\$1,848	40	66	\$7,500	-26	10	\$9,982	25%	0%	75%	0	244
12	6 Inch	1960	\$2,000	C	100%	\$5,914	40	66	\$24,000	-26	10	\$31,942	25%	50%	25%	0	781
17	8 Inch	1960	\$2,500	C	100%	\$10,472	40	66	\$42,500	-26	10	\$56,564	25%	50%	25%	0	1,383
6	12 Inch	1960	\$5,500	C	100%	\$8,132	40	66	\$33,000	-26	10	\$43,921	25%	50%	25%	0	1,074
	Fire Hydrants			100%									0%	0%	100%	0	0
30	Fire Hydrants	1960	\$10,000	C	100%	\$73,923	50	66	\$300,000	-16	10	\$399,278	25%	50%	25%	0	9,759
	Water Meters			100%									0%	0%	100%	0	0
238	3/4 Inch Meters	2022	\$336	C	100%	\$73,459	15	4	\$79,988	11	12	\$112,694	25%	50%	25%	0	2,284
10	1 Inch Meters	2022	\$416	C	100%	\$3,821	15	4	\$4,160	11	12	\$5,862	25%	0%	75%	0	119
2	2 Inch Meters	2022	\$1080	C	100%	\$1,984	15	4	\$2,160	11	12	\$3,044	25%	0%	75%	0	62
1	4 Inch Meters	2022	\$3168	C	100%	\$2,910	15	4	\$3,168	11	12	\$4,464	25%	0%	75%	0	90
	Computers			100%									0%	0%	100%	0	0
1	Surface Pro	2024	\$1700	C	100%	\$1,629	5	2	\$1,700	3	5	\$1,961	25%	0%	75%	0	97
3	Desktop Computer	2024	\$2200	C	100%	\$6,326	5	2	\$6,600	3	5	\$7,614	25%	0%	75%	0	377
2	Router/Switch	2024	\$900	C	100%	\$1,725	5	2	\$1,800	3	5	\$2,077	25%	0%	75%	0	103
1	Samsung Tablet	2024	\$800	C	100%	\$767	5	2	\$800	3	5	\$923	25%	0%	75%	0	Not Cap.
	Vehicles			100%									0%	0%	100%	0	0
1	14ft Enclosed Trailer	2023	\$2,000	C	100%	\$1,877	10	3	\$2,000	7	8	\$2,514	25%	0%	75%	0	77
1	12ft Flatbed Trailer	2025	\$4,359	C	100%	\$4,267	10	1	\$4,359	9	10	\$5,802	25%	0%	75%	0	142
	Tools/Miscellaneous			100%									0%	0%	100%	0	0
1	Leak Detector	2024	\$6,000	C	100%	\$5,751	15	2	\$6,000	13	14	\$8,953	25%	0%	75%	0	155
1	Metal Detector	2023	\$150	C	100%	\$141	15	3	\$150	12	13	\$218	25%	0%	75%	0	Not Cap.
1	Magnetic Locator	2024	\$550	C	100%	\$527	15	2	\$550	13	14	\$821	25%	0%	75%	0	Not Cap.

Replacement of Funded Project Assets																
Qty	Asset	Year Acquired	Unit Cost	Cost Type *	% Belonging to Water	Normal Estimated Life	Time to Complete	Estimated Current Cost	Planned Remaining Life	Estimated Remaining Life	Estimated Future Cost	Fund with Cash Grant	Fund with Loan	Existing Reserves	Annual Reserve Required	



Exhibit F: Cost Allocations

Fixed vs. Variable Allocation	Notes:			
OPERATIONS & MAINTENANCE EXPENSES				
Budget Line Item	5-Year Avg	% Fixed	\$ Fixed	\$ Variable
Salaries & Wages / Operations	\$92,830.61	90%	\$83,547.54	\$9,283.06
Wage Dispute	\$6,970.00	100%	\$6,970.00	\$0
Payroll Taxes	\$15,047.40	100%	\$15,047.40	\$0
Unemployment	\$568.59	100%	\$568.59	\$0
Workers Compensation	\$3,867.94	100%	\$3,867.94	\$0
Overtime	\$2,274.35	100%	\$2,274.35	\$0
Retirement	\$36,392.91	100%	\$36,392.91	\$0
Part Time Wages	\$0	100%	\$0	\$0
Administration	\$51,719.91	100%	\$51,719.91	\$0
Operating Supplies	\$22,102.53	90%	\$19,892.27	\$2,210.25
Bank Charges	\$2,983.84	100%	\$2,983.84	\$0
Office Supplies	\$2,210.25	100%	\$2,210.25	\$0
Accounting/Auditing/Budget	\$18,698.74	100%	\$18,698.74	\$0
Legal	\$11,051.26	100%	\$11,051.26	\$0
Insurance & Bond	\$12,156.39	100%	\$12,156.39	\$0
Misc Expense	\$2,210.25	100%	\$2,210.25	\$0
Maint & Repair	\$40,481.00	100%	\$40,481.00	\$0
Power	\$9,946.14	80%	\$7,956.91	\$1,989.23
Permits & Certifications	\$2,762.82	90%	\$2,486.53	\$276.28
Travel	\$3,315.38	100%	\$3,315.38	\$0
Telephone	\$4,973.07	100%	\$4,973.07	\$0
Water Samples	\$7,735.88	100%	\$7,735.88	\$0
Rent	\$4,973.07	100%	\$4,973.07	\$0
Backflow Test	\$1,657.69	100%	\$1,657.69	\$0
Vehicle Operations	\$5,525.63	100%	\$5,525.63	\$0
Water System Fuel	\$884.10	100%	\$884.10	\$0
Safety	\$1,105.13	100%	\$1,105.13	\$0
Budget Pub & Election	\$2,873.33	100%	\$2,873.33	\$0
Plant Management Services	\$11,051.26	100%	\$11,051.26	\$0
Dues	\$2,210.25	100%	\$2,210.25	\$0
Postage and Billing Supplies	\$3,867.94	100%	\$3,867.94	\$0
Software and IT Services	\$19,892.27	100%	\$19,892.27	\$0
Equipment	\$22,102.53	100%	\$22,102.53	\$0
Office and Computer Equipment	\$2,210.25	100%	\$2,210.25	\$0
Total O&M Expenses	\$428,652.70		\$414,893.87	\$13,758.82

GENERAL & ADMINISTRATIVE EXPENSES				
Budget Line Item	5-Year Avg	% Fixed	\$ Fixed	\$ Variable
Operating Reserve Funding	\$4,899.24	100%	\$4,899.24	\$0
Emergency Reserve Funding	\$30,000.00	100%	\$30,000.00	\$0
Debt Reserve Funding	\$0	100%	\$0	\$0
Replacement of Existing Capital Assets	\$146,054.86	100%	\$146,054.86	\$0
Replacement of Funded Project Assets	\$0	100%	\$0	\$0
Reserves for Additional Capital Assets	\$0	100%	\$0	\$0
Debt Service	\$55,200.00	100%	\$55,200.00	\$0
Operating Reserve Funding	\$4,899.24	100%	\$4,899.24	\$0
Emergency Reserve Funding	\$30,000.00	100%	\$30,000.00	\$0
Total General and Administrative Expenses:	\$236,154.10		\$236,154.10	\$0
Total All Expenses	\$664,806.80		\$651,047.98	\$13,758.82
Fixed-Variable as % of all Expenses			98%	2%



Exhibit G: Rate Options

Rate Option #1					
Residential Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 73.44	\$ 85.34	\$ 99.16	\$ 115.23	\$ 133.89
1	\$ 73.44	\$ 85.34	\$ 99.16	\$ 115.23	\$ 133.89

Rate Option #1					
Non-Residential Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 73.44	\$ 85.34	\$ 99.16	\$ 115.23	\$ 133.89
1	\$ 138.72	\$ 161.19	\$ 187.31	\$ 217.65	\$ 252.91
1.5	\$ 138.72	\$ 161.19	\$ 187.31	\$ 217.65	\$ 252.91
2	\$ 159.12	\$ 184.90	\$ 214.85	\$ 249.66	\$ 290.10
3	\$ 220.32	\$ 256.01	\$ 297.49	\$ 345.68	\$ 401.68
4	\$ 261.12	\$ 303.42	\$ 352.58	\$ 409.69	\$ 476.06

Rate Option #1					
Residential 2 on 1 Meter Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 89.76	\$ 104.30	\$ 121.20	\$ 140.83	\$ 163.65

Rate Option #1			
Standard Usage Rates Per CF			
Tier Block	Residential	Non-Residential	Residential 2 on 1 Meter
Per CF	\$0.14	\$0.14	\$0.14

Results of Rate Option #1						
	2027	2028	2029	2030	2031	5 Years
Total Expenses	\$628,094	\$663,404	\$665,663	\$686,778	\$708,948	\$3,345,673
Total Revenue	\$447,504	\$501,190	\$562,050	\$631,122	\$709,603	\$2,851,469
Net Loss or Gain (Short/Over to Reserves)	-\$180,589	-\$162,213	-\$103,613	-\$55,656	\$655	-\$494,204
Net Cash Flow (Contribution to Reserves)	\$365	\$18,741	\$77,341	\$125,298	\$181,609	\$410,567
Affordability of average residential bill	3.06%	3.43%	3.85%	4.34%	4.88%	
In Simple Terms:						
Are you putting enough \$ into reserves?	No	No	No	No	Yes	
Positive Annual Cash Flow?	Yes	Yes	Yes	Yes	Yes	

Rate Option #2						
Residential Rates						
Meter Size	2027	2028	2029	2030	2031	
3/4	\$ 73.44	\$ 85.63	\$ 99.85	\$ 116.42	\$ 135.75	
1.000	\$ 73.44	\$ 85.63	\$ 99.85	\$ 116.42	\$ 135.75	

Rate Option #2						
Non-Residential Rates						
Meter Size	2027	2028	2029	2030	2031	
3/4	\$ 73.44	\$ 85.63	\$ 99.85	\$ 116.42	\$ 135.75	
1.000	\$ 138.72	\$ 161.75	\$ 188.60	\$ 219.90	\$ 256.41	
1.500	\$ 138.72	\$ 161.75	\$ 188.60	\$ 219.90	\$ 256.41	
2.000	\$ 159.12	\$ 185.53	\$ 216.33	\$ 252.24	\$ 294.12	
3.000	\$ 220.32	\$ 256.89	\$ 299.54	\$ 349.26	\$ 407.24	
4.000	\$ 261.12	\$ 304.47	\$ 355.01	\$ 413.94	\$ 482.65	

Rate Option #2				
Residential 2 on 1 Meter Rates				
Meter Size	2027	2028	2029	2030
3/4	\$ 89.76	\$ 104.66	\$ 122.03	\$ 142.29
				\$ 165.91

Rate Option #2			
Standard Usage Rates per CF			
Tier Block	Residential	Non-Residential	Residential 2 on 1 Meter
Per CF	\$0.14	\$0.14	\$0.14

Results of Rate Option #2						
	2027	2028	2029	2030	2031	5 Years
Total Expenses	\$628,094	\$670,616	\$672,875	\$693,990	\$716,160	\$3,367,309
Total Revenue	\$447,504	\$502,516	\$565,060	\$636,253	\$717,389	\$2,868,722
Net Loss or Gain (Short/Over to Reserves)	-\$180,589	-\$160,100	-\$107,815	-\$57,736	\$1,228	-\$498,587
Net Cash Flow (Contribution to Reserves)	\$365	\$12,854	\$73,139	\$123,218	\$182,183	\$406,183
Affordability of average residential bill	3.06%	3.44%	3.88%	4.37%	4.94%	
In Simple Terms:						
Are you putting enough \$ into reserves?	No	No	No	No	Yes	
Positive Annual Cash Flow?	Yes	Yes	Yes	Yes	Yes	

Rate Option #3					
Residential Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00
1	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00

Rate Option #3					
Non-Residential Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00	\$ 54.00
1	\$ 102.00	\$ 102.00	\$ 102.00	\$ 102.00	\$ 102.00
1.5	\$ 102.00	\$ 102.00	\$ 102.00	\$ 102.00	\$ 102.00
2	\$ 117.00	\$ 117.00	\$ 117.00	\$ 117.00	\$ 117.00
3	\$ 162.00	\$ 162.00	\$ 162.00	\$ 162.00	\$ 162.00
4	\$ 192.00	\$ 192.00	\$ 192.00	\$ 192.00	\$ 192.00

Rate Option #3					
Residential 2 on 1 Meter Base Rates					
Meter Size	2027	2028	2029	2030	2031
3/4	\$ 66.00	\$ 66.00	\$ 66.00	\$ 66.00	\$ 66.00

Rate Option #3					
Standard Usage Rates per CF					
Tier Block	Residential	Non-Residential	Residential 2 on 1 Meter		
Per CF	\$ 0.10	\$ 0.10	\$ 0.10	\$ 0.10	

Results of Rate Option #3						
	2027	2028	2029	2030	2031	5 Years
Total Expenses	\$628,094	\$656,191	\$658,450	\$679,565	\$701,735	\$3,324,034
Total Revenue	\$324,169	\$324,169	\$324,169	\$324,169	\$324,169	\$1,620,844
Net Loss or Gain (Short/Over to Reserves)	-\$303,925	-\$332,022	-\$334,281	-\$355,396	-\$377,566	-\$1,703,190
Net Cash Flow (Contribution to Reserves)	-\$122,971	-\$151,068	-\$153,327	-\$174,442	-\$196,612	-\$798,420
Affordability of average residential bill.	2.22%	2.22%	2.22%	2.22%	2.22%	
In Simple Terms:						
Are you putting enough \$ into reserves?	No	No	No	No	No	No
Positive Annual Cash Flow?	No	No	No	No	No	No