

**COST OF SERVICE ANALYSIS
FOR
DURHAM IRRIGATION DISTRICT**

Prepared for:

**Durham Irrigation District
PO Box 98
Durham, CA 95938**

Prepared by:

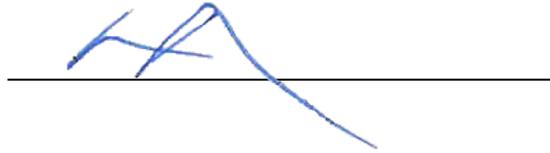


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Executive Summary and Recommendations

The Durham Irrigation District (DID) is mandated to be self-sufficient. Self-sufficiency means revenue generated must meet all expenses of the District. All user fees must reflect the actual cost of providing services rendered. The adopted user fee rate structure must proportionally distribute the approximate cost of service to those benefited by the service.

This Cost of Service Analysis (COSA) for Water Rates for DID reviewed various methods of rate structure. This COSA found the current Equivalent Dwelling Unit (EDU) based rate structure to be equitable and non-discriminatory. ***Continuance with the current EDU based method is preferred and is recommended. Additionally, the current EDU based rate structure provides a very stable rate of annual income since it is not dependent upon variables such as rates based on water usage. Approximately 70% of District's revenue received from water sales is from the monthly base rate and 30% is from water usage. This is a suitable split of revenue based on the District's historical fixed and variable expenses.***

This COSA reviewed annual budget summaries for the past three years. Throughout this period, the number of customers has remained very steady, currently at 476. The annual projected income from customer base rate fees is approximately \$331,700 based on the current EDU established rate structure. Metered water usage fees are seasonally variable and fluctuate annually depending upon the length and intensity of the summer landscape irrigation season. Annual income from usage fees is approximately \$136,000 based on the usage in 2024. The approximate total amount that the District billed (\$467,700) is higher than the amount of revenue the District received in 2024 from water sales due to delinquent accounts. The actual revenue from water sales received in 2024 was \$436,363. The District anticipates recovering revenue from delinquent accounts utilizing authorized collection methods.

Total annual operating expenses are increasing due to inflationary demands and are now projected approximately at \$485,153 for Fiscal Year (FY) 2026. The current rate structure is estimated to generate approximately \$455,000 per year on average. ***This COSA found that Annual Expenses will exceed Annual Income at the rate of approximately \$30,153 for FY 2026. Under the current O&M Fee rate structure DID will operate at a loss for FY 2026 and beyond. A rate increase is necessary to fund this shortfall.***

It is important for the District to follow sound financial management practices. This includes maintaining a reasonable operating reserve, funding working capital, and maintaining a good credit rating.

It is recommended that the District initially targets a minimum operating reserve to cover three months operation cost, approximately \$100k. The Financial Balance Sheet as of January 31, 2025, shows that the District has met the suggested target of \$100k minimum operating reserve within their California CLASS account, which should be maintained.

DID has recently approved the September 2024 Capital Improvement Program (CIP). The list of proposed projects included in this CIP focuses on the following:

- Replacement of aging infrastructure.
- Regulatory compliance.
- Eliminating existing deficiencies within the system.
- Increasing system reliability and water supply security.
- Water conservation.
- Improving operational cost efficiency.

Limited funds dedicated to deferred repairs and maintenance have been available for some time due to ongoing budget constraints. ***It is recommended that the District budget the annual amount of \$50k to be applied to a Deferred Repairs and Maintenance Fund. Over the 5 years of this proposed series of rate increases this fund has the potential to accrue \$250,000.***

To meet the minimum financial needs of the District, this COSA projected five years of annual budgets beginning with FY 2026 and running through FY 2030.

Introduction

Durham Irrigation District (District) is committed to providing a safe, affordable, and reliable source of water supply for its customers. To accomplish this, the District levies a variety of water rates and charges for water services provided to customers. Water rates are required to be set at levels sufficient to cover the costs of: (1) ongoing operations and maintenance; (2) repair of water system facilities; (3) acquisition of materials and supplies; (4) labor and administration; (5) capital improvements, and (6) maintenance of adequate cash reserves.

Any rate increase(s) shall be governed by the need to meet operating and capital costs, maintain adequate debt coverage, and build reserve funds. It is critical for the District to maintain reasonable reserves in order to handle emergencies, fund working capital, maintain a good credit rating, and generally follow sound financial management practices.

The District is mandated to be self-sufficient. Self-sufficiency means revenues generated from utility sales, services, and other sources must meet all expenses, both operating and nonoperating, of the District.

User charges shall reflect the actual cost of providing services rendered. The rate structure must proportionally distribute the approximate cost of service to those benefited by the service. An equitable rate structure must consider all user classes, and rates must be placed according to benefit and use. There are a number of factors that should be considered when developing or updating a rate structure. The rate structure should:

- Generate sufficient revenue to pay for the total cost of the system,
- Distribute the costs of the system fairly across all user classes,
- Enable the customer accounting to be easily performed, and
- Be easily understood and accepted by the consumer.

Background

Water System

Durham Irrigation District (District) is an irrigation district of the State of California formed in 1948 pursuant to the provisions of Division 11 of the California Water Code for the purposes of delivering municipal, industrial, and irrigation water to the lands within its boundaries. The District was originally formed for the purpose of providing irrigation water for the farming operations in what was then primarily an agricultural community. However, since its formation the District's service area has changed from predominantly an agricultural community to predominantly a residential community.

DID relies solely on groundwater supplied through three wells. The District owns three parcels of land on which the wells are located. Water is pumped from the wells into a conveyance system owned by the District. In March 2008 the California Waterworks Standards were revised to include a new methodology for determining minimum required source capacity and proof that water systems with fewer than 1,000 service connections had either storage capacity equal to maximum daily demand, or additional source supply that could meet the demand. Source capacity from any

two of the District wells combined exceeds the maximum daily demand, so the third well is considered an additional source of supply. Therefore, *distribution storage is not required at this time*. The maximum pumping capacity of the three wells is approximately 3.456 MGD (million gallons per day) while the average daily use is 0.51 MGD or 15% of capacity. In 2018, an estimated 187 MG (million gallons) was delivered.

2024 Well Assessment estimation of flow capacity

- Well pump #3 can deliver 800 gallons per minute (1.152 MGD)
- Well pump #4 can deliver 500 gallons per minute (0.72 MGD)
- Well pump #5 can deliver 1100 gallons per minute (1.584 MGD)

DID currently has 476 Customers, 420 of which are metered and 56 are flat rate, or unmetered. The estimated population served is 1,561. The District operates approximately 9.5 miles of pipelines.

The District is classified as a *Community Water System*, and therefore is required to utilize a State Certified Operator for the operation of the water system. The District Water System Operator engaged by the District is certified and monitors the delivery system functionality and water quality on a daily basis. The District Water System Operator performs all of the water quality sampling and compiles the data for required reporting to the State Water Resources Control Board. District water is treated with chlorine by injection at the wells prior to delivery.

The District remains focused on detecting and reporting lead levels as required and has completed an inventory of the potential for lead in user service lines, also as required. With the passage of Assembly Bill 746 the state of California has required that community water systems conduct lead sampling of drinking water in all public K-12 schools constructed before 2010. The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them, and reporting results through this new program. In August 2018, Durham Irrigation District provided services for sampling of drinking water at 10 locations throughout Durham Unified School District campuses. The laboratory returned test results with “non-detectable levels” from all ten sampling locations. In addition, the District completes mandated annual sampling for lead in random commercial and residential service locations located throughout the District.

The District completed an audit of all available water system records in an effort to inventory for the potential for lead in user service lines. Records of all service lines were incomplete so in early 2024 the District completed a physical inventory of unknown pipeline material type facilities.

DID’s facilities were last inspected by the State Water Resources Control Board, Drinking Water Field Operations Branch, on May 16, 2017, and no deficiencies were found. DID has not had any water quality violations since 2002, when methyl tert-butyl ether (MTBE) were detected (Violation No. 2003-221005). This violation appears to have been cleared by the State Water Resources Control Board in February 2018 (Enforcement Action No. 2018-9621011).

DID performed the required PFAS testing under the General Order DW 2024-0002-DDW resulting in one well where PFAS chemicals were detected above the Notification Level via US Environmental Protection Agency (EPA) regulations. The origin of the contaminant is unknown at this time, but the water system is working with the State Water Board and other agencies to identify the circumstances of the contamination. Direction from the State Water Board on the next steps has not been given to the District but it is anticipated that quarterly sampling of the affected well will be required to determine a baseline. The cost for such sampling has been included as a future expense.

Rate Structure

DID is a very simple water supply and distribution system. All customers are supplied water from the three wells via a single Operational Zone. The District **does not have** special pressure zones or water supply zones that might have differing Variable Expenses.

Similarly, the cost to supply water to the various customer classes is not different. For example, there are no non-residential customers that require an enhanced water supply. In essence, the District has one Commodity Block. It should be noted that there are some customers that do require “enhanced” service from the District. The most notable examples are those customers with a required backflow prevention device or those customers with fire sprinkler systems. The cost for these instances is passed on to the individual customer, separate from rates, and is set to recover only “actual” costs incurred by the District.

Water rates must consider how fixed and variable rates are designed to collect the target level of revenues and achieve other District goals such as revenue stability and water conservation. Typical to most water utility’s, DID’s fee structure includes two components, a fixed Base Monthly Fee, and a variable Water Usage Fee. The Base Monthly Fee is set to recover Fixed Expenses incurred by the District while the Metered Rate Water Usage Fee is set to recover Variable Expenses. The Base Monthly Fee is directly related to the size of the water service meter or water supply pipeline serving the customer. This is an industry-standard approach, which relates to the hydraulic capacity of the meters and directly links the customer’s base charge to the safe operating capacity of their water meter. Customers with larger meters pay for greater capacity potential in the system.

Note that all multi-family and non-residential (schools, agencies, churches, commercial, and industrial) customers all pay based on meter size. This is considered a nondiscriminatory method of classification.

Not all DID customers have metered water supply. The District still has 56 “Flat Rate” customers with no meter. It should be noted that State Law requires all customers to be metered by the end of 2025.

Current Rates

For the purposes of this Cost of Service Analysis the current water rate structure is the rate structure that was reinstated effective May 1, 2023. The current Water Rate structure is very simple and straight forward. All customers are billed on a monthly basis. A meter reader physically reads each water meter every month. If it is physically not possible for a meter to be read, then the water usage is estimated for that location based on past usage history.

Customers still on a Flat Rate service fee are all located within the older neighborhoods within the DID Service Area boundary. Typically, these are smaller lots with smaller homes and less formal irrigated landscaping than is found in the newer areas of the community. Flat Rate customers pay a fixed monthly fee for each month of the year with no water usage fee attached. The monthly fee is based on water meter size and remains the same each month of the year. Flat Rate service fees are set to be approximately equal to a typical spring or fall bill for a metered water service (combined base rate fee and average water usage fee).

Metered customers pay a monthly Base Rate fee that is lower than the corresponding Flat Rate fee. Plus, the metered customer pays a usage fee for actual water used each month. This fee is based on the monthly meter reading. Summer landscape irrigation season usage is generally higher than winter usage so metered rate water bills can vary considerably throughout the year. See the Current Water Rate Structure Table.

CURRENT WATER RATE STRUCTURE

SERVICE SIZE	CURRENT RATE
FLAT RATE SERVICES	
3/4" Service	\$63.78
1" Service	\$84.16
1-1/2" Service	\$134.74
2" Service	\$194.21
Development	\$1,084.20
METERED RATE SERVICES - BASE FEE	
3/4" Service	\$35.07
1" Service	\$46.43
1-1/2" Service	\$72.02
2" Service	\$102.50
Misc. Service	\$701.49
METERED RATE SERVICES - QUANTITY USAGE FEE	
Per CCF (748 gallons)	\$1.00

Note, it is DID policy that new development of all types is required to fully fund any water system improvements necessary to for the project. The adopted District Water Service Policy includes this statement:

"All new pipelines and service facilities to supply water to new developments shall be installed at the full cost and expense of the owners of such developments and shall be installed in accordance with the District's Pipeline requirements."

Cost of Service Analysis Methodology

The methodology of this Cost of Service Analysis (COSA) is consistent with industry standards established by the American Water works Association (AWWA) *Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1*.

The COSA process begins with a revenue analysis by reviewing the current rate structure, reserve funds, and income trends and then comparing them to the forecasted operating and reserve costs to establish the adequacy of existing rates. Rates may need to be increased if a shortfall exists.

Typically, the next step in the process is to predict trends in water usage. Revenue and expenses are related to expected water usage. Actual water usage is influenced by changes to rates, regulatory impacts, weather, and other variables. The normal industry trend is for water usage to decline as rates increase and as regulatory conservation measures increase and/or are enforced.

Rates are then designed to equitably recover costs from customers. Operational costs are typically divided into two categories, Fixed Expenses and Variable Expenses. Fixed Expenses are those that are related to the day-to-day operations of the District, irrespective of the amount of water volume actually delivered to customers. Fixed Expenses include office staffing, supplies, rent,

taxes, etc. Variable Expenses are those that are directly attributable to physically supplying water to the customers on a daily basis. These include electricity for the well pumps, chlorine, repairs, etc. Typically, Fixed Expenses are recovered based on the size of the water meter serving the customer. The AWWA publishes industry standard water meter size “equivalency factors” used to equitably prorate the customers impact on the water system. The Fixed Expenses recovery comes from the Base Rate portion of the typical water bill. Variable Expenses are recovered based on the actual units of water sold. This is the water usage portion of the water bill.

It is important for the District to follow sound financial management practices. This includes meeting annual operating and maintenance cost, maintaining a reasonable operating reserve, funding working capital, and maintaining a good credit rating. The District’s current approach with regard to these objectives is as follows:

- **Meeting Annual Operating and Maintenance Costs:** The District’s operating budget identifies the District’s expenditures for operating and maintaining the water utility. The adoption and update of this budget is approved each year by the Board.
- **Maintaining a Reasonable Operating Reserve:** It is recommended that the District target a minimum operating reserve of twenty-five percent (25%) of the annual Operating and Maintenance expenditures, or about three months of operating expenses, to handle daily cash flow requirements and emergencies. Annual depreciation is considered an operating expense and should be funded like any other operating expense. If funds are not collected for depreciation then this cost is being passed along to the next generation of users. Depreciation is an approximation calculated by dividing the historical cost of assets by the estimated useful lifespan (approx. \$25k).
- **Maintaining Adequate Debt Service Coverage Ratios:** A “coverage ratio” is typically required as a part of the obligations incurred when a utility assumes debt. Generally, a District will fix, prescribe, and collect rates and charges to yield net revenues, after operating expenses, equal to one hundred twenty-five percent (125%) of debt service in any given fiscal year. *Currently, the District has no debt.*
- **Funding Capital Improvement Projects:** The District needs to adequately support and fund the renewal and replacement of existing infrastructure. Districts typically strive to maintain an appropriate balance between pay-as-you-go, or cash-funding, and funding of these projects through issuance of debt. This balance is determined with the overall intent of minimizing rate increases and maintaining the financial health of the utility. DID has completed a CIP Planning and Implementation Process, including public outreach through community workshops. *Currently, the District has no debt and no stated plans to incur debt related to the CIP.*

Rate Design Analysis

Typically, the **rate design analysis** is concerned with the equitable allocation of the total revenue requirements between the various customer classes (e.g., residential, non-residential, etc.). This analysis aims for a fair and equitable manner to collect the revenue required. It assesses the typical revenue generated by the current rates and compares it to projected expenses over the next five years (2026-2030) to determine if a rate increase is necessary.

Revenue Analysis

For this Cost of Service Analysis, the previous three years of financials were analyzed. The rates varied throughout 2022 and 2024, which is reflected in the total revenue observed over those years. The rates currently utilized were adopted in February 2022. In February of 2023 the rates decreased and were not brought back up to the current rates until May of 2023, explaining why

the total revenue in 2023 was lower in comparison to both 2022 and 2024. See the Historical Revenue Summary Table below.

HISTORICAL REVENUE SUMMARY

	2022	2023	2024
TOTAL REVENUE	\$463,137.00	\$419,571.00*	\$447,804.00

*The total revenue for 2023 shown in the Historical Budget Summary table does not include \$118,172.00 received from a legal settlement.

Considering the history of the rate changes over this three-year period, an average of the revenue for 2022 and 2024 (excluding 2023) is a good representation of the general revenue the current rate structure generates. This average revenue is approximately \$455,500, this includes water sales and connection fees.

Expenses Analysis

For this Cost of Service Analysis, the District expenses over the last three years (2022-2024) were analyzed. The primary goal of examining the historical expenses was to identify trends to assist in projecting expenses for future years. The expense projections are used to assess if the current rates will generate sufficient revenue to offset expenses while ensuring the maintenance of reasonable operating reserves, funding working capital, and maintaining a good credit rating. See the Historical Budget Summary Table below for an outline of the expense breakdown, total revenue, and total profit/loss for 2022, 2023, and 2024.

HISTORICAL BUDGET SUMMARY

	FY 2022	FY 2023	FY 2024
EXPENSES:			
Contract Services			
Accounting Fees	\$12,258.00	\$13,718.00	\$25,511.00
Engineering Support	\$29,004.00	\$67,933.00	\$56,902.00
Legal	\$48,758.00	\$51,283.00	\$14,611.00
Management and Administration	\$0.00	\$13,463.00	\$9,936.00
Contract Services - Other	\$0.00	\$220.00	\$0.00
Water Operations Management	\$3,140.00	\$0.00	\$0.00
Operating Expenses			
Board Stipends	\$6,000.00	\$5,400.00	\$4,300.00
Contract Services	\$1,096.00	\$1,284.00	\$0.00
Insurance	\$6,586.00	\$7,009.00	\$8,126.00
Payroll Service Fees	\$1,719.00	\$2,010.00	\$2,203.00
Payroll Tax Expense	\$1,742.00	\$3,599.00	\$2,890.00
Property Taxes	\$12.00	\$12.00	\$12.00
Wages	\$27,976.00	\$48,655.00	\$32,495.00
Fees, Dues, Memberships	\$14,853.00	\$7,332.00	\$8,383.00
Meals	\$44.00	\$23.00	\$0.00

Postage	\$1,162.00	\$4,173.00	\$3,150.00
Software	\$115.00	\$442.00	\$310.00
Office Supplies	\$2,571.00	\$3,286.00	\$1,997.00
Website Hosting	\$900.00	\$954.00	\$1,008.00
Office Expense - Other	\$0.00	\$222.00	\$0.00
Rent	\$7,695.00	\$8,529.00	\$8,182.00
Software Fees	\$1,320.00	\$1,470.00	\$6,813.00
Garbage	\$1,484.00	\$1,595.00	\$1,644.00
Gas & Electric	\$73,983.00	\$76,056.00	\$92,852.00
Telephone/Internet	\$2,708.00	\$2,845.00	\$3,746.00
Bank Service Charges	\$3,568.00	\$3,770.00	\$4,652.00
Agency Fees	\$432.00	\$0.00	\$0.00
Development Project Fees	\$2,178.00	\$4,082.00	\$93.00
Total Administration	\$251,306.00	\$329,364.00	\$289,805.00
Water System Maintenance, Repair, Replacement			
O&M Supplies	\$29,239.00	\$39,148.00	\$13,043.00
Water Testing Fees	\$6,434.00	\$4,108.00	\$5,822.00
Weed Management	\$10,900.00	\$11,600.00	\$10,455.00
Repairs	\$88,518.00	\$84,048.00	\$18,226.00
Contractor	\$43,707.00	\$32,061.00	\$6,185.00
Water Operator	\$35,608.00	\$41,802.00	\$42,705.00
Total Water System Maintenance	\$214,406.00	\$212,767.00	\$96,436.00
TOTAL EXPENSES:	\$465,712.00	\$542,131.00	\$386,241.00
TOTAL REVENUE	\$463,137.00	\$537,743.00*	\$447,804.00
NET INCOME/LOSS	-\$2,575.00	-\$4,388.00	\$61,563.00

*The total revenue for 2023 shown in the Historical Budget Summary table includes the \$118,172.00 received from a legal settlement.

The increase in net income in 2024 was mainly due to a decrease in expenses that year. In 2024 the District deferred maintenance projects that were not urgent and completed some projects utilizing CIP funds. The decrease in expenses can be seen when comparing previous year's expense line items for Repairs and Contractor expenses to 2024 in the Historical Budget Summary Table above. The reduced expenses resulted in an increase in total income in 2024.

It is standard practice that the fixed expenses are covered by the fixed monthly fee based on meter size and the variable expenses are covered by the usage fee. Based on the current rates and reviewing the revenue from 2024, approximately 70% of the revenue comes from the base rate while 30% of the revenue is from usage fees. This is an adequate split of revenue based on the historical split of fixed and variable expenses the District experiences.

Projected Financial Data

For this Cost of Service Analysis, projected expenses for the next five years were compared to the

historical revenue generated from the current rates.

There are significant economic and regulatory trends impacting all water districts, including the DID budget moving forward. These factors include:

- Increasing electric power costs to pump water from the three wells.
- Increasing regulatory requirements and costs. These include:
 - o Lead and copper rules – testing, monitoring, and reporting annually.
 - o All unmetered service connections must have meters installed by 2025. There are currently 56 unmetered water services in the District that are billed at a Flat Rate.
 - o Water quality testing, monitoring, and reporting, monthly and annually.
 - o Compliance with State regulations for groundwater sustainability. DID draws water from the Tuscan aquifer which has been shown to have declining groundwater levels. The District will be required to pay additional fees of an unknown amount that will begin in the near future.
- Increasing operational and maintenance costs. On average, all costs of services are projected to increase with inflation. **Average annual inflation has been estimated at 5%.**

The District’s water distribution system includes approximately 9.5 miles of pipeline. This pipeline network has significant deficiencies that negatively impact daily operations and delivery of water to customers. The most notable impact to customers is when portions of the system must be shut down, something that occurs pretty much monthly. Reasons include:

- Lack of isolation valves – The older portions of the District’s distribution system lack shutoff valves that allow small discrete sections (typically one block or smaller) of pipeline to be shut off to repair leaks or perform maintenance. Cost of valve installation is included as a line item in the Capital Improvement Program and also in the cost for each individual pipeline replacement project included in the CIP. The normal annual operational budget has also included some funds for replacing individual valves when opportunity arises.
- Lack of pipeline redundancy – Water delivery systems must be designed to modern industry standards with a redundant pipe network. This allows water delivery to continue to most customers during pipeline shutdown.
- Substandard pipeline size – Many of the existing pipelines found within the older areas of the District are 4” in diameter or smaller. Current commonly accepted industry standard is for 6” minimum pipe size with 8” more typical.
- Substandard fire hydrants – The District owns the fire hydrants. Some older hydrants found within the District are the “wharf” style, no longer allowed by fire departments.
- Substandard fire flow – The District is unable to provide minimum code required fire flows to some commercial and industrial customers. Typically, this results in higher fire insurance premiums for those customers.
- Aging infrastructure – Many pipelines found within the District are 70 years old or more. Many of these pipelines are steel and beginning to leak. Leaking water is an unrecovered cost to the District. Repairs to leaking pipelines is a significant cost to the District as well as a source of pipeline shutdown and service interruption.

DID has a Capital Improvement Program (CIP) that includes a wide range of infrastructure improvement projects. Basic goals of the CIP include:

- Replacement of aging infrastructure.
- Regulatory compliance.
- Eliminating existing deficiencies within the system.
- Increasing system reliability and water supply security.

- Water conservation.
- Improving operational cost efficiency.

Infrastructure projects in the Capital Improvement Program include:

- Lead Service Pipe Study (Regulatory Compliance)
- Wharf Hydrant Replacement
- Valve Installation and Replacement
- Meters (Regulatory Compliance)
- Pipeline Replacement
- Well Improvements
- Well Replacement

It is recommended that the Board allocates funding at the end of each fiscal year to the Capital Improvement Projects reserve fund dependent on the amount of revenue they received within the year. Valve replacement is an example of project work that has been completed using these funds in past years. Another example is the installation of pressure tanks at each well site and the abandonment of the old leaking steel pressure tank at the alley well. The three wells owned and operated by the District are the sole source of water. It is essential that these wells be operational at all times. All three wells are needed to serve the water demands during the summer months as well as during extreme fire emergencies. Therefore, the CIP reserve budgeted can be used to provide funds for unexpected well costs as well.

To predict expenses for 2026-2030, the district’s expenditures from 2022-2024 were thoroughly reviewed. Each of the expense line items were examined individually to identify trends, ensuring accurate projection for future cost. Most expenses showed a steady annual increase, primarily due to the rising cost of living. Examples of such items include office supplies, software fees, O&M supplies, etc. For expenses that were observed to increase due to the cost of living, a 5% increase was applied annually for the five-year projection. Certain expenses exhibited a higher annual increase, such as the PG&E electricity bill at 12.5% and insurance at 15%. For expenses with percentage increases exceeding the rate of inflation, the observed higher annual increase was applied to the projected expense. After identifying these expenses trends, they were used to project costs for the next five years shown below in the Projected Expenses Table.

PROJECTED EXPENSES

	2026	2027	2028	2029	2030
EXPENSES:					
Contract Services					
Accounting Fees	\$11,487.00	\$12,061.00	\$12,664.00	\$13,298.00	\$13,963.00
Engineering Support	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00	\$70,000.00
Legal	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00
Management and Administration	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00	\$12,000.00
Operating Expenses					
Board Stipends	\$3,000.00	\$7,200.00	\$7,200.00	\$7,200.00	\$7,200.00
Insurance	\$10,746.00	\$12,358.00	\$14,212.00	\$16,344.00	\$18,795.00
Payroll Service Fees	\$2,475.00	\$2,624.00	\$2,781.00	\$2,948.00	\$3,125.00
Payroll Tax Expense	\$2,866.00	\$3,009.00	\$3,160.00	\$3,318.00	\$3,484.00

Wages	\$35,826.00	\$37,617.00	\$39,498.00	\$41,473.00	\$43,547.00
Fees, Dues, Memberships	\$10,894.00	\$12,420.00	\$14,158.00	\$16,141.00	\$18,400.00
Postage	\$3,848.00	\$4,041.00	\$4,243.00	\$4,455.00	\$4,678.00
Software	\$273.00	\$287.00	\$301.00	\$316.00	\$332.00
Office Supplies	\$2,625.00	\$2,756.00	\$2,894.00	\$3,039.00	\$3,191.00
Website Hosting	\$2,394.00	\$2,514.00	\$2,639.00	\$2,771.00	\$2,910.00
Rent	\$13,200.00	\$13,200.00	\$13,200.00	\$13,200.00	\$13,200.00
Software Fees	\$5,922.00	\$6,218.00	\$6,529.00	\$6,855.00	\$7,198.00
Garbage	\$1,812.00	\$1,903.00	\$1,998.00	\$2,098.00	\$2,203.00
Gas & Electric	\$117,515.00	\$132,205.00	\$148,730.00	\$167,322.00	\$188,237.00
Telephone/Internet	\$4,130.00	\$4,337.00	\$4,554.00	\$4,781.00	\$5,021.00
Bank Service Charges	\$5,750.00	\$6,225.00	\$6,750.00	\$7,300.00	\$7,300.00
Total Administration	\$341,763.00	\$367,975.00	\$392,511.00	\$419,859.00	\$449,784.00
Water System Maintenance, Repair, Replacement					
O&M Supplies	\$28,502.00	\$29,927.00	\$31,424.00	\$32,995.00	\$34,645.00
Water Testing Fees	\$4,106.00	\$4,311.00	\$4,526.00	\$4,753.00	\$4,990.00
Weed Management	\$11,200.00	\$11,200.00	\$11,200.00	\$11,200.00	\$11,200.00
Repairs	\$26,250.00	\$27,563.00	\$28,941.00	\$30,388.00	\$31,907.00
Contractor	\$26,250.00	\$27,563.00	\$28,941.00	\$30,388.00	\$31,907.00
Water Operator	\$47,082.00	\$49,436.00	\$51,908.00	\$54,503.00	\$57,228.00
Total Water System Maintenance	\$143,390.00	\$150,000.00	\$156,940.00	\$164,227.00	\$171,877.00
TOTAL EXPENSES:	\$485,153.00	\$517,975.00	\$549,451.00	\$584,086.00	\$621,661.00

As stated previously the current rates produce a revenue of around \$455,500 per year. Comparing the revenue to the projected expenses for the next five years, the District would be operating at a loss and drawing upon reserve funds in 2026 and on. Based on this Revenue Analysis and Projected Financial Data, a rate increase is necessary.

Proposed Water Rate Structure

To meet the minimum financial needs of the District based on projected budget expenses for 2026 through 2030, the rates shown in the Proposed Water Rate Structure Table are recommended. The first rate increase is proposed to take effect in late 2025 and extend through the end of 2026. A rate increase will then occur at the start of each year from 2027 through 2030, resulting in a total of 5 rate increases. A 25% rate increase for both fixed and usage rates is proposed for 2025/2026, followed by an annual 10% increase for the fixed and usage rates in 2027 to 2030.

PROPOSED WATER RATE STRUCTURE

SERVICE SIZE	PROPOSED RATE				
FLAT RATE SERVICES					
	2025/2026*	2027	2028	2029	2030
3/4" Service	\$79.73	\$87.70	\$96.47	\$106.11	\$116.73
1" Service	\$105.20	\$115.72	\$127.29	\$140.02	\$154.02
1-1/2" Service	\$168.43	\$185.27	\$203.79	\$224.17	\$246.59
2" Service	\$242.76	\$267.04	\$293.74	\$323.12	\$355.43
Development	\$1,355.25	\$1,490.78	\$1,639.85	\$1,803.84	\$1,984.22
METERED RATE SERVICES - BASE FEE					
3/4" Service	\$43.84	\$48.22	\$53.04	\$58.35	\$64.18
1" Service	\$58.04	\$63.84	\$70.23	\$77.25	\$84.97
1-1/2" Service	\$90.03	\$99.03	\$108.93	\$119.82	\$131.81
2" Service	\$128.13	\$140.94	\$155.03	\$170.53	\$187.59
3" Service	\$241.14	\$265.25	\$291.78	\$320.96	\$353.05
4" Service	\$387.35	\$426.09	\$468.69	\$515.56	\$567.12
6" Service	\$752.57	\$827.83	\$910.61	\$1,001.67	\$1,101.84
Misc. Service	\$876.86	\$964.55	\$1,061.00	\$1,167.10	\$1,283.81
METERED RATE SERVICES - QUANTITY USAGE FEE					
Per CCF (748 gallons)	\$1.25	\$1.38	\$1.51	\$1.66	\$1.83

*Rate when adopted in late 2025 through 2026.

Projected Financial Data

Based on past water consumption history and the proposed water rate structure, the future revenue for the next five years was projected. It was assumed that all unmetered accounts will be switched to metered by the end of 2025. No revenue from usage was assumed for the newly metered accounts to be conservative. The normal industry trend is for water usage to decline as rates increase and as regulatory conservation measures increase and/or are enforced. DID does not have any empirical data regarding the impacts to usage due these factors. For the purposes of this Cost of Service Analysis it is assumed that water usage for metered accounts will decline by 5% annually.

The total annual revenue for the next five years is projected as shown in the Projected Budget Summary Table. It is suggested that the Board allocates funding at the end of each fiscal year to the Capital Improvement Projects reserve fund dependent on the amount of revenue they received within the year.

The District recently approved a (CIP) that anticipates the total cost of system repairs to be approximately \$5,000,000. It is suggested that the District set aside any surplus income to support the Capital Improvement Program (CIP).

PROJECTED BUDGET SUMMARY

	2026	2027	2028	2029	2030
PROJECTED REVENUE	\$520,156.35	\$562,817.31	\$608,808.90	\$658,370.63	\$711,756.62
PROJECT EXPENSES:	\$485,153.00	\$517,975.00	\$549,451.00	\$584,086.00	\$621,661.00
NET INCOME/LOSS	\$35,003.35	\$44,842.31	\$59,357.90	\$74,284.63	\$90,095.62

Rate Comparison

The most common type of service found in the Durham Irrigation District is a 3/4" metered service. See the Rate Comparison – 3/4" Metered Water Service Table for a comparison of other water providers in the region.

RATE COMPARISON - 3/4" METERED WATER SERVICE

Usage Volume	0 CF	400 CF	800 CF	1300 CF	2100 CF	4100 CF	Effective Date
Utility	<i>= 0 gal</i>	<i>=2992 gal</i>	<i>=5984 gal</i>	<i>=9724 gal</i>	<i>=15708 gal</i>	<i>=30668 gal</i>	
California Water Services - Chico	\$ 39.62	\$ 41.37	\$ 46.44	\$ 56.91	\$ 75.32	\$ 144.80	1/1/2025
California Water Services - Oroville	\$ 61.63	\$ 64.04	\$ 71.08	\$ 85.64	\$ 111.26	\$ 208.03	1/1/2025
Del Oro Water Company - Lime Saddle	\$ 27.35	\$ 40.16	\$ 52.97	\$ 68.98	\$ 94.60	\$ 158.64	7/17/2024
Del Oro Water Company - Magalia	\$ 44.83	\$ 67.38	\$ 89.93	\$ 118.12	\$ 163.22	\$ 275.97	7/17/2024
Del Oro Water Company - Paradise Pines	\$ 35.10	\$ 50.66	\$ 66.22	\$ 85.66	\$ 116.78	\$ 194.57	7/17/2024
Del Oro Water Company - Stirling Bluffs	\$ 28.34	\$ 41.50	\$ 54.67	\$ 71.13	\$ 97.46	\$ 163.28	7/17/2024
Durham Irrigation District - CURRENT	\$ 35.07	\$ 39.07	\$ 43.07	\$ 48.07	\$ 56.07	\$ 76.07	5/1/2024
Durham Irrigation District - PROPOSED	\$ 43.84	\$ 48.84	\$ 53.84	\$ 60.09	\$ 70.09	\$ 95.09	PROPOSED
Paradise Irrigation District	\$ 42.97	\$ 49.41	\$ 55.85	\$ 63.90	\$ 76.78	\$ 108.98	1/1/2019
Thermalito Water and Sewer District	\$ 39.65	\$ 42.93	\$ 46.21	\$ 56.87	\$ 56.87	\$ 73.27	7/1/2024
City of Redding	\$ 29.72	\$ 37.72	\$ 45.72	\$ 55.72	\$ 71.72	\$ 111.72	1/1/2025
City of Sacramento	\$ 52.30	\$ 56.94	\$ 61.58	\$ 67.38	\$ 78.94	\$ 109.74	1/1/2025

Summary

Proposition 218 is a constitutional initiative, approved by California voters in November 1996, that significantly restricts local governments' ability to raise revenue. It applies to nearly 7,000 cities, counties, school districts, special districts, including water districts, and other agencies. In essence, Proposition 218 requires that water districts set water rates on a cost-of-service basis, provide written notice of proposed changes, and hold at least one public hearing. To ensure compliance with Proposition 218, water districts seeking to update water rates often engage consulting firms to perform a Cost of Service Analysis.

Consistent with the cost-of-service principle, a typical Cost of Service Analysis calculates the amount of revenue the water district needs to collect through charges to its customers to cover its anticipated costs including operating costs, capital improvement costs, and debt servicing costs. A water rate structure is then designed to ensure that all costs are recovered fairly and equitably and that the rates will provide fiscal stability to the water district. The Cost of Service Analysis determined that a rate increase is necessary.