
City of Malibu

2024 Wastewater and Recycled Water Rates Update Report – April 22, 2024

Prepared by: Water Resources Economics, LLC



**Water Resources
Economics**

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WATER SERVICE

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April 1, 2024

Rob DuBoux
Public Works Director
City of Malibu
23825 Stuart Ranch Road
Malibu, CA 90265

Subject: City of Malibu 2024 Wastewater and Recycled Water Rates Update

Dear Mr. DuBoux,

Water Resources Economics, LLC is pleased to submit this 2024 Wastewater and Recycled Water Rates Update Report to the City of Malibu Public Works Department. This report documents the results and recommendations of the 2024 Wastewater and Recycled Water Rates Update. The overall goal of the update was to develop a proposed four-year schedule of wastewater and recycled water rates through FY 2027-28 that will sufficiently fund the Civic Center Water Treatment Facility's operations and maintenance expenses and provide financial stability for the City's Fund 515.

This update utilized industry-standard rate-setting methodology in accordance with guidelines developed by the American Water Works Association and the Water Environment Federation. Our project team has a proven record of developing fair and equitable water and wastewater rates for numerous public water agencies in California over the past 25 years. We're confident in our ability to develop sound rates that satisfy Proposition 218 requirements.

It has been a pleasure assisting the City and we appreciate the support provided by yourself, Ms. Brandie Ayala, and other City staff over the course of the update.

Sincerely,

Sanjay Gaur
Principal Consultant

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ABBREVIATIONS

CCWTF: Civic Center Water Treatment Facility
City: City of Malibu
EDU: Equivalent Dwelling Unit
FY: Fiscal year (July 1 – June 30)
GPD: Gallons per day
HCF: One hundred cubic feet
O&M: Operations and maintenance
WRE: Water Resources Economics, LLC

1. EXECUTIVE SUMMARY

OVERVIEW

The City of Malibu (City) developed the Civic Center Water Treatment Facility (CCWTF) in response to regulatory actions taken by the Los Angeles Regional Water Quality Board and the State Water Resources Control Board to prohibit discharges from septic systems in the City's Civic Center area. Phase One of the CCWTF project was completed in 2018 and included the construction of wastewater and recycled water collection systems. Phase Two and Phase Three of the CCWTF, which have yet to commence, will extend wastewater and recycled water services to additional parcels in the City's Civic Center area.

The City established wastewater charges and recycled water rates to recover ongoing CCWTF Phase One operations and maintenance (O&M) expenses from customers connected to the system. These rates were developed during two prior rate studies conducted in 2017 and 2021. The City engaged Water Resources Economics (WRE) to conduct this rate update to establish a four-year schedule of proposed wastewater and recycled water rates through FY 2027-28. Note that the City formed Assessment District No. 2015-1 in 2016 to recover the capital costs of CCWTF Phase One construction from parcels, but that these charges are not within the scope of this rate update.

LEGAL REQUIREMENTS

Legal considerations relating to retail water and wastewater rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that "property related fees and charges" (which include retail water and wastewater rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water and wastewater agencies in California must demonstrate a sufficient nexus between the costs incurred by the agency to provide service and the rates charged to customers.

RATE-SETTING METHODOLOGY

This rate update study was conducted based on industry-standard methodologies outlined by the American Water Works Association in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* and the Water Environment Federation in its *Manual of Practice No. 27: Financing And Charges for Wastewater Systems, Fourth Edition*. The overall rate study process is summarized in the steps outlined below:

1. **Financial Plan:** Annual revenues from current rates and expenses are projected over a multi-year period to establish baseline financial projections. If current rates generate insufficient revenues to recover expenses and meet financial targets, then the need for rate increases is evaluated.

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2. **Rate Design:** The existing rate structure is evaluated, and potential changes are identified. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and any additional cost allocation analyses for the selected rate structure.
3. **Rate Study Documentation:** A rate study report is developed to document the proposed rate development process. The report serves to provide transparency to customers and elected officials, and to enhance legal defensibility in light of Proposition 218 requirements. This document serves as the report for this rate update.

CURRENT WASTEWATER AND RECYCLED WATER RATES

The City’s currently adopted wastewater and recycled water rate schedule extends through FY 2023-24. Wastewater and recycled water rates and charges are recovered by the City from customers twice per year via the County of Los Angeles property tax roll. The City’s current wastewater and recycled water rate structure consists of the following types of rates and charges:

1. **Wastewater Charges:** The current wastewater rate structure consists of a single uniform fixed charge per equivalent dwelling unit (EDU). One EDU represents the wastewater flow generation and strength loadings of a typical single family residential household. Wastewater customers currently connected to the CCWTF Phase One system are subject to wastewater charges based on the number of EDUs attributed to each parcel.
2. **Recycled Water Volumetric Rates:** The current recycled water rate structure consists of volumetric rates per hundred cubic feet (HCF) of water delivered. Recycled water customers within Assessment District No. 2015-1 are subject to a two-tier volumetric rate structure. Tier 1 includes an uncharged allotment of up to 14 HCF per EDU per month. Tier 2 includes all use in excess of 14 HCF per EDU per month. Recycled water customers outside of Assessment District No. 2015-1 are subject to a higher uniform volumetric rate because they do not contribute to CCWTF Phase One construction costs via separate Assessment District charges.

Table 1-1: Current Wastewater and Recycled Water Rate Schedule

Current Rates	FY 2021-22 (7/1/2021)	FY 2022-23 (7/1/2022)	FY 2023-24 (7/1/2023)
Wastewater Fixed Charges			
Monthly Wastewater Charge (per EDU)	\$546.26	\$558.56	\$506.44 ¹
Recycled Water Volumetric Rates			
Inside Assessment District: Tier 1 (per HCF)	\$0.00	\$0.00	\$0.00
Inside Assessment District: Tier 2 (per HCF)	\$2.24	\$2.30	\$2.36
Outside Assessment District (per HCF)	\$5.81	\$5.87	\$5.93

¹ Note that the adopted FY 2023-24 monthly wastewater charge per EDU of \$571.17 was reduced to \$506.44 by City staff to account for higher than anticipated EDU growth and to prevent the overcollection of revenues.

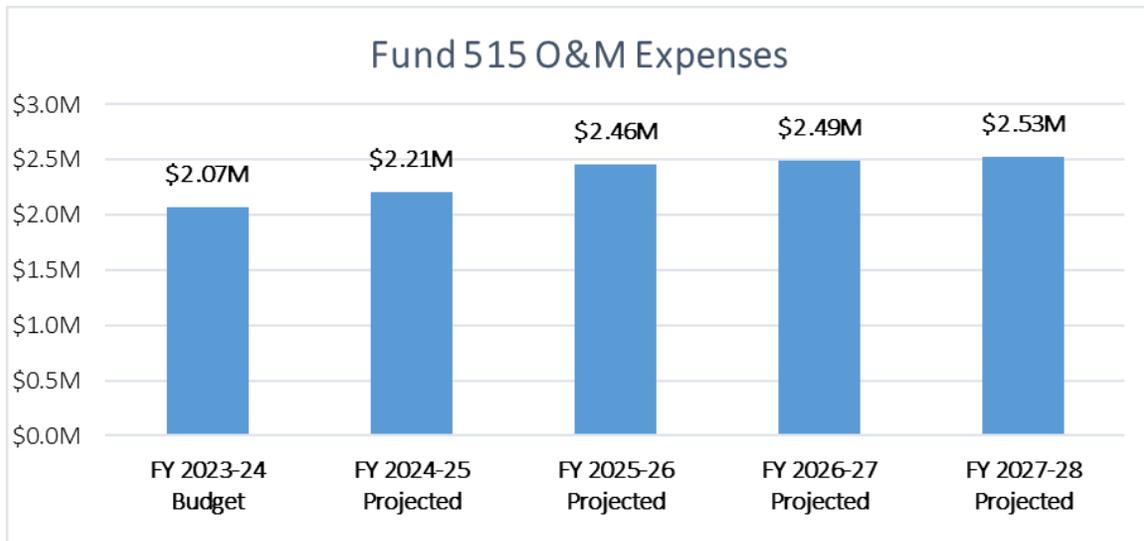
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KEY ASSUMPTIONS

Projected Fund 515 O&M Expenses

O&M expenses funded by wastewater and recycled water rates include CCWTF Fund (Fund 515) salaries, benefits, operations, and maintenance expenses. Annual O&M expenses were projected over the study period based on the City’s adopted FY 2023-24 budget (see Figure 1-1). Annual cost escalation assumptions were developed to reflect anticipated cost changes due to inflationary pressures, changes in operations, and detailed cost projections from City staff and the contracted CCWTF operator. Total Fund 515 O&M expenses are projected to increase by 5.2% per year on average. In particular, contractual costs that the City must pay to the CCWTF operator, as well as equipment maintenance, biosolids disposal, and motor fuel expenses are expected to increase substantially throughout the rate-setting period.

Figure 1-1: Projected CCWTF Fund (Fund 515) O&M Expenses



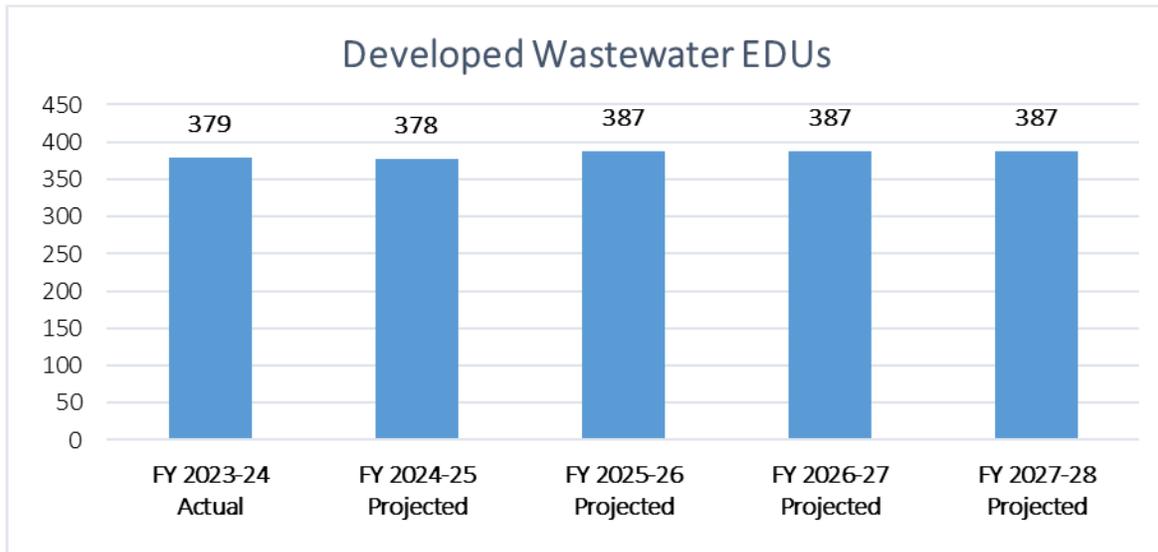
Projected Units of Service

Units of service represent the quantity of billing units subject to rates and charges. The number of developed EDUs connected to the CCWTF system represent the units of service for the City’s wastewater charges. The number of developed EDUs were projected by City staff and reflect a relatively small amount of anticipated parcel development in the Phase One service area over the rate-setting period (see Figure 1-2).

Annual recycled water deliveries in HCF are the units of service for the City’s recycled water rates. Although recycled water generated at the CCWTF is currently being used at Malibu Bluffs Park or sent to injection wells, no Phase One customers have received recycled water deliveries to date. In order to ensure sufficiently conservative revenue projections, no recycled water sales were assumed over the rate-setting period.

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Figure 1-2: Projected Wastewater Equivalent Dwelling Units (EDUs)



RESULTS AND RECOMMENDATIONS

Proposed Revenue Adjustments

Annual revenues and expenses were forecasted over a five-year period to establish financial projections for the City’s CCWTF Fund. This provided a basis from which to evaluate the need for wastewater and recycled rate increases (referred to as “revenue adjustments”). Various proposed revenue adjustment scenarios over the four-year rate-setting period were considered and refined based on input from City staff and the City’s Public Works Commission, resulting in the proposed revenue adjustments shown below (see Table 1-2). The proposed revenue adjustments include 2% increases each July over the next four fiscal years.

Table 1-2: Proposed Revenue Adjustments

Fiscal Year	Effective Date	Revenue Adjustment %
FY 2024-25	July 1, 2024	2.0%
FY 2025-26	July 1, 2025	2.0%
FY 2026-27	July 1, 2026	2.0%
FY 2027-28	July 1, 2027	2.0%

Financial Plan Projections

Five-year financial plan projections for the City’s CCWTF Fund are shown on the following page for two scenarios: 1) excluding the proposed revenue adjustments (referred to as the “status quo financial plan”) and 2) including the proposed revenue adjustments (referred to as the “proposed financial plan”). A comparison of the two scenarios clearly shows that revenue adjustments are necessary in order for the CCWTF Fund to avoid an operating deficit over the rate-setting period.

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Status Quo vs. Proposed Financial Plans: Projected Cash Balance

Under the status quo financial plan, an operating deficit emerges in the last three years, which means that revenues are insufficient to meet expenses and that reserves must be drawn from to cover a portion of expenses (see Figure 1-3).² If unforeseen CCWTF maintenance or replacement needs emerge that are not reflected in the status quo financial plan’s projected O&M expenses, cash reserves may be depleted much more significantly. Under the proposed financial plan, revenues are projected to meet expenses in all years while maintaining healthy reserve levels (see Figure 1-4).

Figure 1-3: Status Quo Financial Plan Cash Flow

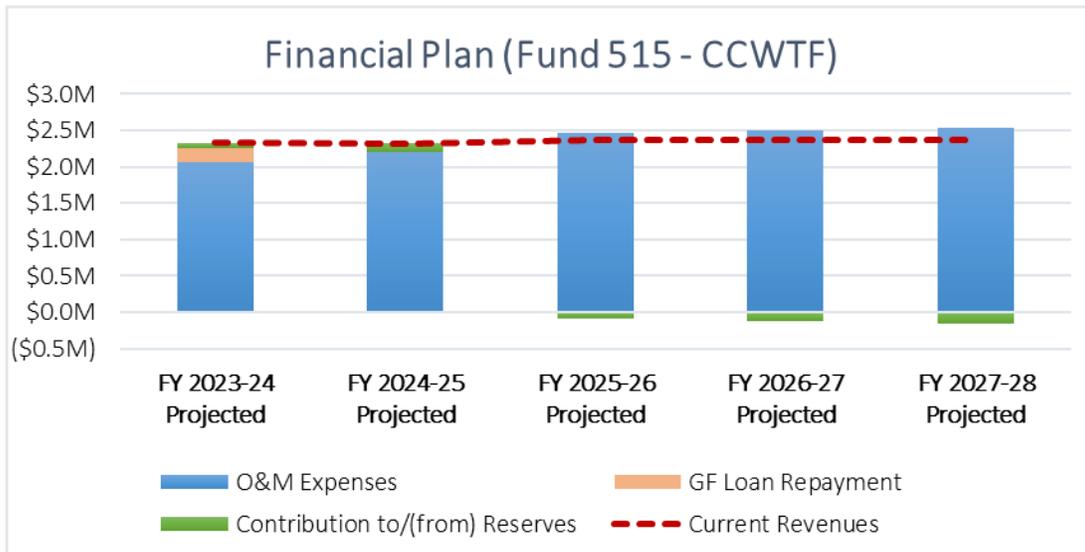
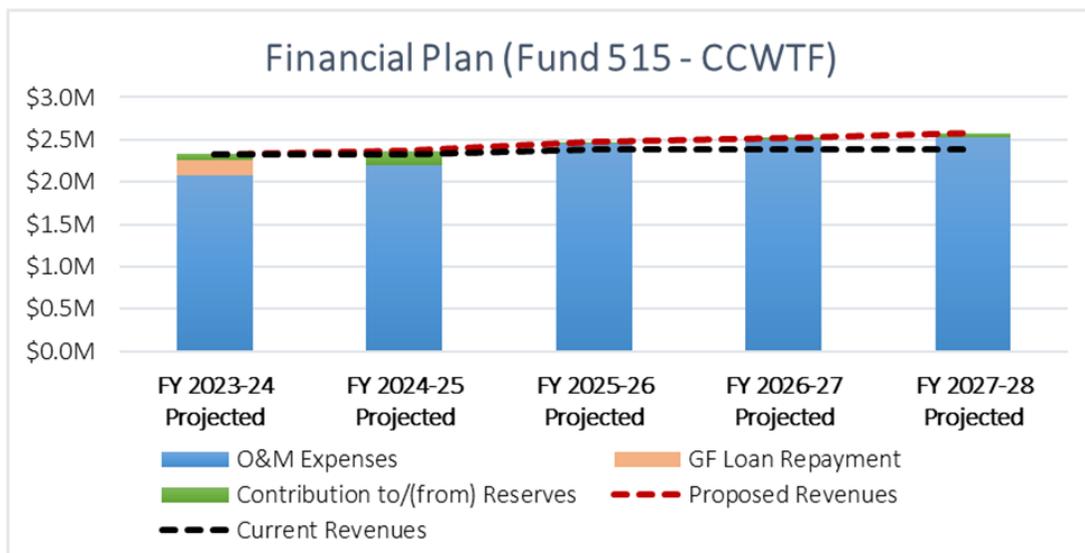


Figure 1-4: Proposed Financial Plan Cash Flow



² Note that the negative green bars in Figure 1-3 represent draw from reserves to cover expenses.

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Proposed Wastewater and Recycled Water Rate Schedule

The City’s existing wastewater and recycled water rate structure was evaluated, and potential changes were considered. However, no rate structure changes are recommended at this time. A combined schedule of current and proposed wastewater and recycled water rates was developed based on the existing rate structure (see Table 1-3). Note that charges separately collected by Assessment No. 2015-1 to recover CCWTF Phase One capital costs are not included, as they are not within the scope of this rate study. Please also note that the proposed rates are designed to recover CCWTF Phase One costs only, and do not account for any future additional costs resulting from Phase Two or Phase Three expansion.

Proposed wastewater rates were calculated by increasing current FY 2023-24 monthly wastewater charges by the proposed 2% annual revenue adjustments (per Table 1-2). This is slightly different than the wastewater rate calculation methodology utilized in the City’s two prior rate studies. This change was employed in order to reduce the level of rate volatility from year to year by smoothing out annual wastewater rate increases. Proposed recycled water rates were calculated based on the same methodology utilized in the City’s two prior rate studies. This methodology allocates costs to recycled water customers based on use of and contribution to the CCWTF system.

Table 1-3: Proposed Wastewater and Recycled Water Rate Schedule

Proposed Rate Schedule	FY 2023-24 Current (7/1/2023)	FY 2024-25 Proposed (7/1/2024)	FY 2025-26 Proposed (7/1/2025)	FY 2026-27 Proposed (7/1/2026)	FY 2027-28 Proposed (7/1/2027)
Wastewater					
Monthly Wastewater Charge (per EDU)	\$506.44	\$516.57	\$526.91	\$537.45	\$548.20
Recycled Water					
Inside Assessment District: Tier 1 ³ (per HCF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Inside Assessment District: Tier 2 ⁴ (per HCF)	\$2.36	\$2.47	\$2.83	\$2.88	\$2.93
Outside Assessment District (per HCF)	\$5.93	\$6.13	\$6.49	\$6.54	\$6.59

³ Tier 1 includes all recycled water use up to 14 HCF per EDU per month.

⁴ Tier 2 includes all recycled water use in excess of 14 HCF per EDU per month.

2. INTRODUCTION

2.1 WASTEWATER AND RECYCLED WATER SYSTEM OVERVIEW

The City of Malibu (City) developed the Civic Center Water Treatment Facility (CCWTF) in response to regulatory actions taken by the Los Angeles Regional Water Quality Board and the State Water Resources Control Board to prohibit discharges from septic systems in the City’s Civic Center area. Phase One of the CCWTF project was completed in 2018 and included the construction of a wastewater collection system, wastewater treatment facility, recycled water distribution lines, and a recycled water treatment facility. The CCWTF currently provides wastewater collection and centralized treatment services to parcels in the central core of the City’s Civic Center area. Phase Two and Phase Three of the CCWTF project, which have yet to commence, will extend wastewater and recycled water services to additional parcels in the City’s Civic Center area.

2.2 RATE STUDY OVERVIEW

The City established and implemented wastewater charges and recycled water rates to recover ongoing CCWTF Phase One operations and maintenance (O&M) expenses from customers connected to the Phase One system. The *2017 Wastewater and Recycled Water Rates Study* established wastewater charges and recycled water rates for a three-year period spanning from Fiscal Year (FY) 2017-18 through FY 2019-20. The rates and charges developed were designed to recover ongoing Phase One O&M expenses only. Rate increases were delayed, and existing FY 2019-20 rates remained in effect through FY 2020-21 due to the COVID-19 pandemic. *The 2021 Wastewater and Recycled Water Rate Update Study* then established a new schedule of three-year wastewater and recycled water rates through FY 2023-24.

Public retail water and wastewater agencies in California typically conduct a rate study at least once every five years to ensure that customers are appropriately charged for service in compliance with applicable laws. The City therefore engaged Water Resources Economics (WRE) in November 2023 to conduct this rate update study to establish a four-year schedule of proposed wastewater and recycled water rates spanning from FY 2024-25 through FY 2027-28. The primary purpose of this update was to reevaluate the City’s revenue needs to recover CCWTF Phase One O&M expenses and to establish proposed wastewater and recycled water rates that will comply with all applicable laws. Please note that the City formed Assessment District No. 2015-1 in 2016 to recover the capital costs of CCWTF Phase One construction, but these charges are not within the scope of this rate update.

2.3 LEGAL REQUIREMENTS

Legal considerations relating to retail water and wastewater rates in California focus heavily on Proposition 218, which was enacted in 1996 and is now reflected in Article XIII C and Article XIII D of the California Constitution. Proposition 218 states that “property related fees and charges” (which include retail water and wastewater rates) may not exceed the proportional cost of providing the service to the customer and may not be used for any purpose other than providing said service. The practical implication is that public retail water agencies in California must demonstrate a sufficient

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nexus between the costs incurred by the agency to provide service and the rates charged to customers.

Proposition 218 also affects the rate adoption process by requiring agencies to hold a public hearing to adopt rates. The agency must mail public hearing notices to all customers no fewer than 45 days prior to the public hearing. The public hearing notices must clearly show all proposed rate changes, provide information on the public hearing date/time/location, and provide instructions on how customers may formally protest the proposed rate changes. If a majority of customers submit a formal protest, the proposed rate changes cannot be adopted.

2.4 RATE-SETTING METHODOLOGY

This rate update study was conducted based on industry-standard methodologies outlined by the American Water Works Association in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* and the Water Environment Federation in its *Manual of Practice No. 27: Financing And Charges for Wastewater Systems, Fourth Edition*. The overall rate study process is summarized in the steps outlined below:

1. **Financial Plan:** Annual revenues from current rates and expenses are projected over a multi-year period to establish baseline financial projections. If current rates generate insufficient revenues to recover expenses and meet financial targets, then the need for rate increases is evaluated. The overall goal of the financial plan is to establish the total annual rate revenue requirement over the multi-year rate-setting period.
2. **Rate Design:** The existing rate structure is evaluated, and potential changes are identified. System costs may be allocated to customers in proportion to use of the system, if necessary. A multi-year proposed rate schedule is then calculated directly from the results of the financial plan and any additional cost allocation analyses for the selected rate structure.
3. **Rate Study Documentation:** A rate study report is developed to document the proposed rate development process. The report serves to provide transparency to customers and elected officials, and to enhance legal defensibility in light of Proposition 218 requirements. This document serves as the report for this rate update.

2.5 DISCLAIMERS

- All calculations and projections are based on the best available data as of January 2024.
- All table values are displayed rounded to the nearest digit shown unless stated otherwise. However, all results were calculated based on precise values. Attempting to manually recreate calculations from table values may therefore produce slightly different results.
- No operating or capital costs associated with CCWTF Phase Two or Phase Three expansion were considered or accounted for in this rate update.
- Charges collected by Assessment District No. 2015-1 to recover the capital costs of CCWTF Phase One construction are outside of the scope of this rate update.

3. FINANCIAL PLAN

3.1 FINANCIAL PLAN METHODOLOGY

A financial plan was developed to project revenues, expenses, cash flows, and reserve balances over a five-year period spanning from FY 2023-24 through FY 2027-28. The primary goal of the financial plan is to quantify the total amount of revenue required from wastewater charges and recycled water rates on an annual basis to support the financial needs of the City's CCWTF Fund (Fund 515). The key steps in developing the financial plan are outlined below:

- **Revenue projections:** Annual revenues from rates and other miscellaneous sources are projected over the study period. Rate revenues are projected based on current rates to establish baseline revenues from which the need for additional rate increases can be evaluated.
- **Expense projections:** Annual expenses are projected over the study period. This includes O&M expenses and repayment of internal loans from the City's General Fund to Fund 515. Capital expenses associated with CCWTF Phase One construction are funded separately by Assessment District No. 2015-1 and are therefore not included in the financial plan projections.
- **Evaluation of financial policies:** Relevant financial policies include cash reserve targets. Reserve targets are typically set by an agency's elected officials and may need to be periodically evaluated and updated. There is currently no formal reserve target for Fund 515, but City staff and WRE evaluated potential reserve targets.
- **Status quo financial plan projections:** Cash flow and reserve balances are projected over the study period in the absence of any additional rate increases (i.e., the status quo). Projected reserve balances are then compared to the agency's financial policy requirements and targets, if applicable. The status quo financial plan provides a baseline from which to evaluate the need for rate increases.
- **Proposed financial plan projections:** The magnitude and timing of annual proposed rate increases over the study period are evaluated and determined. Proposed rate increases (referred to as "revenue adjustments") should generate sufficient revenue to recover Fund 515 expenses and maintain adequate reserves. The proposed financial plan determines the total annual rate revenue requirement over the rate-setting period.

3.2 REVENUES

CURRENT RATES

The City's currently adopted three-year wastewater and recycled water rate schedule extends through FY 2023-24 (see Table 3-1). Note that charges collected by Assessment District No. 2015-1 to recover the capital costs of CCWTF Phase One construction are outside of the scope of this study and are therefore not shown. Wastewater and recycled water rates and charges are recovered by the City from customers twice per year via the County of Los Angeles property tax roll. However, all rates and

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charges shown are on a monthly basis. The City’s current wastewater and recycled water rate structure consists of the following types of rates/charges:

1. **Wastewater Charges:** The current wastewater rate structure consists of a single uniform fixed charge per equivalent dwelling unit (EDU). One EDU represents the wastewater flow generation and strength loadings of a typical single family residential household. Wastewater customers currently connected to the CCWTF Phase One system are subject to wastewater charges based on the number of EDUs attributed to each parcel.
2. **Recycled Water Volumetric Rates:** The current recycled water rate structure consists of volumetric rates per hundred cubic feet (HCF) of water delivered. Recycled water customers within Assessment District No. 2015-1 are subject to a two-tier volumetric rate structure. Tier 1 includes an uncharged allotment of up to 14 HCF per month, based on the rationale that costs incurred to produce this amount of recycled water are already recovered by customers’ wastewater charges per EDU. Tier 2 includes all water in excess of 14 HCF per month. Recycled water customers outside of Assessment District No. 2015-1 are subject to a higher uniform volumetric rate to account for fact that these customers do not contribute to CCWTF Phase One construction costs via separate Assessment District charges.

Table 3-1: Current Wastewater and Recycled Water Rates

Current Rates	FY 2021-22 (7/1/2021)	FY 2022-23 (7/1/2022)	FY 2023-24 (7/1/2023)
Wastewater Fixed Charges			
Monthly Wastewater Charge (per EDU)	\$546.26	\$558.56	\$506.44 ⁵
Recycled Water Volumetric Rates			
Inside Assessment District: Tier 1 (per HCF)	\$0.00	\$0.00	\$0.00
Inside Assessment District: Tier 2 (per HCF)	\$2.24	\$2.30	\$2.36
Outside Assessment District (per HCF)	\$5.81	\$5.87	\$5.93

UNITS OF SERVICE

Units of service represent the quantity of billing units subject to rates and charges. The number of EDUs are the units of service for the City’s wastewater charges. The number of developed EDUs were projected by City staff over the study period based on current actuals (see Table 3-2). Note that only “developed” EDUs, which are connected to the CCWTF Phase One wastewater system, are subject to wastewater charges. Annual recycled water use in HCF are the units of service for the City’s recycled water rates. Although recycled water generated at the CCWTF is currently being used at Malibu Bluffs Park or sent to injection wells, no Phase One customers have received recycled water deliveries and

⁵ Note that the adopted FY 2023-24 monthly wastewater charge per EDU of \$571.17 was reduced to \$506.44 by City staff to account for higher than anticipated EDU growth and to prevent the overcollection of revenues.

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no recycled water rate revenues have been collected to date. Therefore, no recycled water sales were assumed over the study period.

Table 3-2: Units of Service

Units of Service	FY 2023-24 Actual ⁶	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
Wastewater EDUs					
Number of Developed EDUs	379	378	387	387	387
Recycled Water Sales (HCF)					
Inside Assessment District: Tier 1	0	0	0	0	0
Inside Assessment District: Tier 2	0	0	0	0	0
Outside Assessment District	0	0	0	0	0
Total	0	0	0	0	0

REVENUE FROM CURRENT RATES

Annual revenues from current rates were projected over the study period (see Table 3-3). Wastewater charge revenues were calculated by multiplying the current FY 2023-24 monthly charges (from Table 3-1) by the respective number of EDUs each year (from Table 3-2), and then multiplying by 12 months (to annualize the revenue). Recycled water volumetric rate revenues were calculated by multiplying current FY 2023-24 recycled water rates (from Table 3-1) by the respective water sales in HCF (from Table 3-2).

Table 3-3: Fund 515 Revenues from Current Rates

Revenues from Current Rates	FY 2023-24 Projected	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
Wastewater					
Wastewater Charges	\$2,303,289	\$2,297,212	\$2,351,907	\$2,351,907	\$2,351,907
Subtotal	\$2,303,289	\$2,297,212	\$2,351,907	\$2,351,907	\$2,351,907
Recycled Water					
Inside Assessment District: Tier 1	\$0	\$0	\$0	\$0	\$0
Inside Assessment District: Tier 2	\$0	\$0	\$0	\$0	\$0
Outside Assessment District	\$0	\$0	\$0	\$0	\$0
Subtotal	\$0	\$0	\$0	\$0	\$0
Total	\$2,303,289	\$2,297,212	\$2,351,907	\$2,351,907	\$2,351,907

⁶ Recycled water sales in FY 2023-24 are partial year actuals as of October 2023. However, no additional recycled water sales are anticipated through the end of FY 2023-24.

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OTHER NON-RATE REVENUES

The City’s Fund 515 also collects revenues from miscellaneous non-rate sources, which were projected over the study period (see Table 3-4). These other revenues include interest earnings on cash reserves, which were projected based on projected cash reserve levels and an assumed 1% annual interest rate. Note that no other sources of revenue were incorporated into the financial plan.

Table 3-4: Fund 515 Other Non-Rate Revenues

	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Other Non-Rate Revenues	Projected	Projected	Projected	Projected	Projected
Interest Earnings	\$25,051	\$25,723	\$27,358	\$27,506	\$27,806
Other Revenues	\$0	\$0	\$0	\$0	\$0
Total	\$25,051	\$25,723	\$27,358	\$27,506	\$27,806

3.3 OPERATIONS & MAINTENANCE EXPENSES

COST ESCALATION ASSUMPTIONS

O&M expenses include Fund 515 salaries, benefits, operations, and maintenance expenses.⁷ Annual cost escalation assumptions were developed to project O&M expenses over the study period (see Table 3-5). The cost escalation assumptions reflect anticipated cost changes due to inflationary pressures, changes in operations, and detailed cost projections from City staff and the contracted CCWTF operator. Inflationary impacts were based both on City-specific historical cost increases as well as inflationary trends across the broader economy. No cost escalation assumptions are shown for FY 2023-24, which is the base year from which all cost escalation adjustments were applied.

Table 3-5: Cost Escalation Assumptions

Cost Escalation Category	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Insurance Premiums	0.00%	15.45%	0.00%	0.00%
Water Treatment Facility (WTF) Maintenance	0.00%	25.00%	0.00%	0.00%
Equipment Maintenance	15.58%	15.58%	15.58%	15.58%
Water Quality	0.00%	9.43%	0.00%	0.00%
Biosolids Disposal	16.12%	16.12%	16.12%	16.12%
Operating Supplies	5.74%	5.74%	5.74%	5.74%
Motor Fuel	18.92%	18.92%	18.92%	18.92%
General Expenses	3.00%	3.00%	3.00%	3.00%
City Salaries/Benefits	4.00%	4.00%	4.00%	4.00%
Static (i.e., no increase)	0.00%	0.00%	0.00%	0.00%

⁷ Note that Fund 515’s General Fund loan interest expense (5810) is excluded from O&M expenses and accounted for separately within the financial plan analysis as part of Fund 515’s General Fund loan repayment.

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O&M EXPENSES

O&M expenses were projected annually over the study period by applying the cost escalation assumptions from Table 3-5 to budgeted FY 2023-24 Fund 515 O&M expenses (see Table 3-6). Total Fund 515 O&M expenses are projected to increase by 5.2% per year on average over the study period. WTF Maintenance (5611) expenses, which include contractual costs that the City must pay to the CCWTF operator, are expected to increase by 25% in FY 2025-26. Other significant cost increases include increases of over 15% each year in equipment maintenance, biosolids disposal, and motor fuel expenses. Because the CCWTF has been operational for less than ten years, City staff is continuing to refine and improve its ability to forecast the CCWTF's operating and maintenance needs. It is therefore possible that additional maintenance and replacement expenses that are not reflected in Table 3-6 may be incurred over the rate-setting period.

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Table 3-6: Fund 515 O&M Expenses

O&M Expenses	Cost Escalation Category	FY 2023-24 Budget	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
Salaries & Benefits						
Full-Time Salaries (4101)	<i>City Salaries/Benefits</i>	\$67,262	\$69,952	\$72,751	\$75,661	\$78,687
Retirement (4201)	<i>City Salaries/Benefits</i>	\$13,627	\$14,172	\$14,739	\$15,329	\$15,942
Health Insurance (4202)	<i>City Salaries/Benefits</i>	\$9,907	\$10,303	\$10,715	\$11,144	\$11,590
Vision Insurance (4203)	<i>City Salaries/Benefits</i>	\$104	\$108	\$112	\$117	\$122
Dental Insurance (4204)	<i>City Salaries/Benefits</i>	\$580	\$603	\$627	\$652	\$679
Life Insurance (4205)	<i>City Salaries/Benefits</i>	\$55	\$57	\$59	\$62	\$64
Disability Insurance (4209)	<i>City Salaries/Benefits</i>	\$659	\$685	\$713	\$741	\$771
Other (4210-4216)	<i>City Salaries/Benefits</i>	\$2,282	\$2,373	\$2,468	\$2,567	\$2,670
Subtotal		\$94,476	\$98,255	\$102,185	\$106,273	\$110,524
Operations & Maintenance						
Professional Services (5100)	<i>Static</i>	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Service Fees and Charges (5210)	<i>General</i>	\$37,000	\$38,110	\$39,253	\$40,431	\$41,644
Advertising & Noticing (5401)	<i>Static</i>	\$500	\$500	\$500	\$500	\$500
Insurance Premiums (5510)	<i>Insurance Premiums</i>	\$210,091	\$230,000	\$230,000	\$230,000	\$230,000
WTF Maintenance (5611)	<i>WTF Maintenance</i>	\$1,155,000	\$1,155,000	\$1,443,750	\$1,443,750	\$1,443,750
Sewer Service Fees (5612)	<i>General</i>	\$1,500	\$1,545	\$1,591	\$1,639	\$1,688
Assessment District - CCWTF (5613)	<i>General</i>	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
Equipment Maintenance [from Budget] (5640)	<i>Equipment Maintenance</i>	\$51,000	\$58,944	\$68,125	\$78,736	\$91,000
Equipment Maintenance [Additional] (5640) ⁸	<i>Non-Recurring</i>	\$0	\$85,000	\$0	\$0	\$0
Water Quality Testing & Monitoring (5656)	<i>Water Quality</i>	\$211,000	\$211,000	\$230,890	\$230,890	\$230,890
Telephone (5721)	<i>General</i>	\$11,000	\$11,330	\$11,670	\$12,020	\$12,381

⁸ Additional costs associated with pump/manhole repairs per City staff.

City of Malibu 2024 Wastewater and Recycled Water Rates Update

O&M Expenses	Cost Escalation Category	FY 2023-24 Budget	FY 2024-25 Projected	FY 2025-26 Projected	FY 2026-27 Projected	FY 2027-28 Projected
Electricity & Gas (5722)	<i>General</i>	\$140,000	\$144,200	\$148,526	\$152,982	\$157,571
Water (5723)	<i>General</i>	\$3,000	\$3,090	\$3,183	\$3,278	\$3,377
Natural Gas (5724)	<i>General</i>	\$5,000	\$5,150	\$5,305	\$5,464	\$5,628
Trash Pickup/Recycling (5725)	<i>General</i>	\$3,500	\$3,605	\$3,713	\$3,825	\$3,939
Biosolids Disposal (5725-01)	<i>Biosolids Disposal</i>	\$55,000	\$63,866	\$74,162	\$86,117	\$100,000
Operating Supplies (6160)	<i>Operating Supplies</i>	\$5,000	\$5,287	\$5,590	\$5,911	\$6,250
Chemical Supplies (6161)	<i>Static</i>	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
Motor Fuel (6500)	<i>Motor Fuel</i>	\$2,000	\$2,378	\$2,828	\$3,364	\$4,000
Subtotal		\$1,978,591	\$2,107,095	\$2,357,269	\$2,387,184	\$2,420,994
Total O&M Expenses		\$2,073,067	\$2,205,350	\$2,459,454	\$2,493,457	\$2,531,517
<i>% Change</i>			6.4%	11.5%	1.4%	1.5%

City of Malibu 2024 Wastewater and Recycled Water Rates Update

3.4 INTERNAL LOANS

Fund 515 has received an internal loan from the City’s General Fund in the past to ensure sufficient cash on hand to cover Fund 515 expenses. All existing General Fund loans to Fund 515 are expected to be fully repaid in FY 2023-24 (see Table 3-7). No additional internal loans from the General Fund to Fund 515 are anticipated over the rate-setting period.

Table 3-7: Fund 515 Existing General Fund Loan Repayment

General Fund Loan Repayment	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Principal	\$186,113	\$0	\$0	\$0	\$0
Interest	\$2,000	\$0	\$0	\$0	\$0
Total	\$188,113	\$0	\$0	\$0	\$0

3.5 FINANCIAL POLICIES

RESERVE TARGETS

Water and wastewater utilities must maintain sufficient cash reserves to cover expenses during short-term cash flow imbalances and to mitigate financial risks. Fund 515 has historically addressed the challenge of short-term cash flow imbalances through the use of internal loans from the General Fund. Because no additional General Fund loans are anticipated over the rate-setting period, WRE and City staff evaluated the need to establish a formal reserve policy for Fund 515. However, it was determined that no formal reserve target was needed at this time. Rather, City staff deemed that an informal Fund 515 reserve target of \$1.5 million is appropriate to cover short-term cash flow imbalances and mitigate financial risks. Therefore, all financial plan projections shown subsequently reference a reserve target of \$1.5 million. Note that this reserve target represents an estimate by City staff of minimum acceptable cash reserve levels but does not reflect any official City policy.

3.6 STATUS QUO FINANCIAL PLAN

Status quo financial plan projections were developed to evaluate whether the currently adopted wastewater and recycled water rates will generate sufficient revenue over the study period to meet Fund 515’s financial needs (see Table 3-8). The proforma shown on the following page combines revenues and expenses from preceding subsections to project Fund 515 cash flow and reserve balances on an annual basis. The status quo financial plan is also summarized in graphical format (see Figure 3-1 and Figure 3-2).

The status quo financial plan provides a baseline scenario from which the need for “revenue adjustments” (i.e., rate revenue increases) can be assessed. Under the status quo financial plan, cash reserves are projected to remain above the informal reserve target of \$1.5 million in all years. However, net cash flow is negative in the last three years, which means that revenues are insufficient to meet expenses and that reserves must be drawn from to cover a portion of expenses. If unforeseen CCWTF maintenance or replacement needs emerge that are not reflected in the status quo financial plan’s projected expenses, cash reserves may be depleted much more significantly.

City of Malibu 2024 Wastewater and Recycled Water Rates Update

Table 3-8: Fund 515 Status Quo Financial Plan Proforma

Line	Description	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	FUND 515 CASH FLOW					
2	Source of Funds					
3	Revenue from Current Rates	\$2,303,289	\$2,297,212	\$2,351,907	\$2,351,907	\$2,351,907
4	Revenue Adjustments	\$0	\$0	\$0	\$0	\$0
5	Interest Earnings ⁹	\$25,051	\$25,723	\$26,899	\$26,092	\$24,938
6	Other Revenues	\$0	\$0	\$0	\$0	\$0
7	General Fund Loan Proceeds	\$0	\$0	\$0	\$0	\$0
8	Total Source of Funds	\$2,328,340	\$2,322,935	\$2,378,806	\$2,378,000	\$2,376,845
9						
10	Use of Funds					
11	O&M: Salaries & Benefits	\$94,476	\$98,255	\$102,185	\$106,273	\$110,524
12	O&M: Operations & Maintenance	\$1,978,591	\$2,107,095	\$2,357,269	\$2,387,184	\$2,420,994
13	General Fund Loan Repayment	\$188,113	\$0	\$0	\$0	\$0
14	Total Use of Funds	\$2,261,180	\$2,205,350	\$2,459,454	\$2,493,457	\$2,531,517
15						
16	Net Cash Flow¹⁰	\$67,160	\$117,584	(\$80,648)	(\$115,457)	(\$154,672)
17						
18	FUND 515 CASH RESERVES					
19	Projected Cash Balance					
20	Beginning Cash Balance	\$2,505,121	\$2,572,281	\$2,689,865	\$2,609,217	\$2,493,760
21	Net Cash Flow	\$67,160	\$117,584	(\$80,648)	(\$115,457)	(\$154,672)
22	Ending Cash Balance	\$2,572,281	\$2,689,865	\$2,609,217	\$2,493,760	\$2,339,087
23						
24	<i>Reserve Target</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>
25	<i>Reserve Target Met?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

⁹ Interest earnings under the status quo financial plan are lower than what is shown in Table 3-4 due to the negative impact of lower cash reserve levels on interest earnings. Table 3-4 reflects projected values under the proposed financial plan.

¹⁰ [Line 16] = [Line 8] – [Line 14]

City of Malibu 2024 Wastewater and Recycled Water Rates Update

Figure 3-1: Status Quo Financial Plan Cash Flow Summary

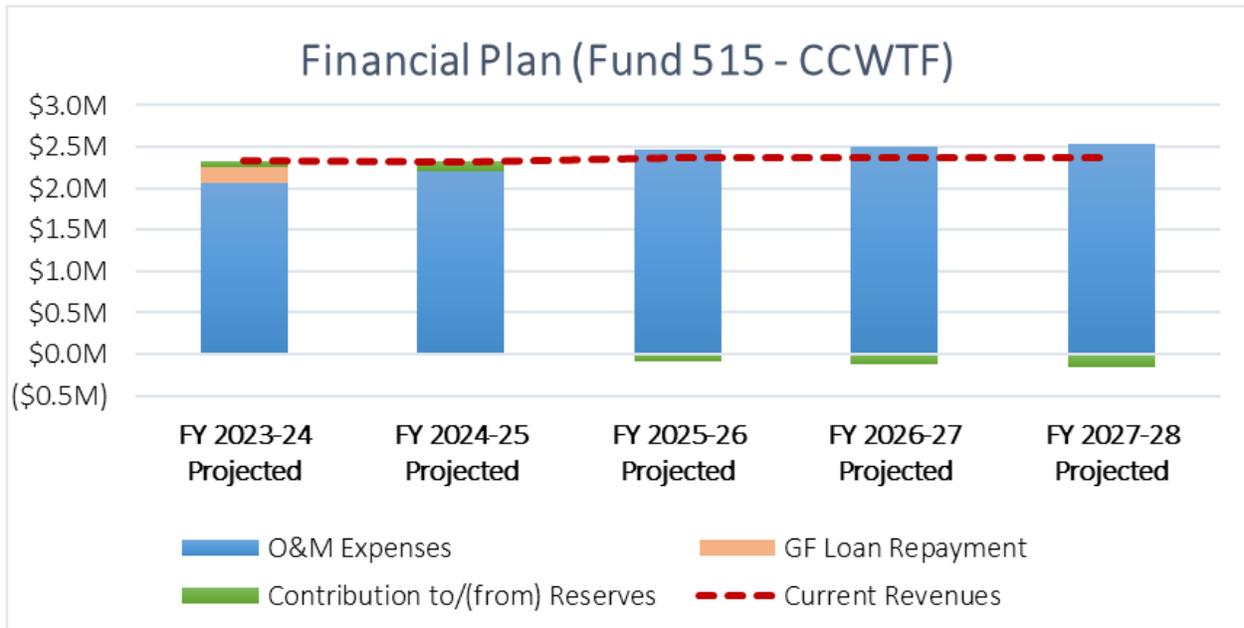
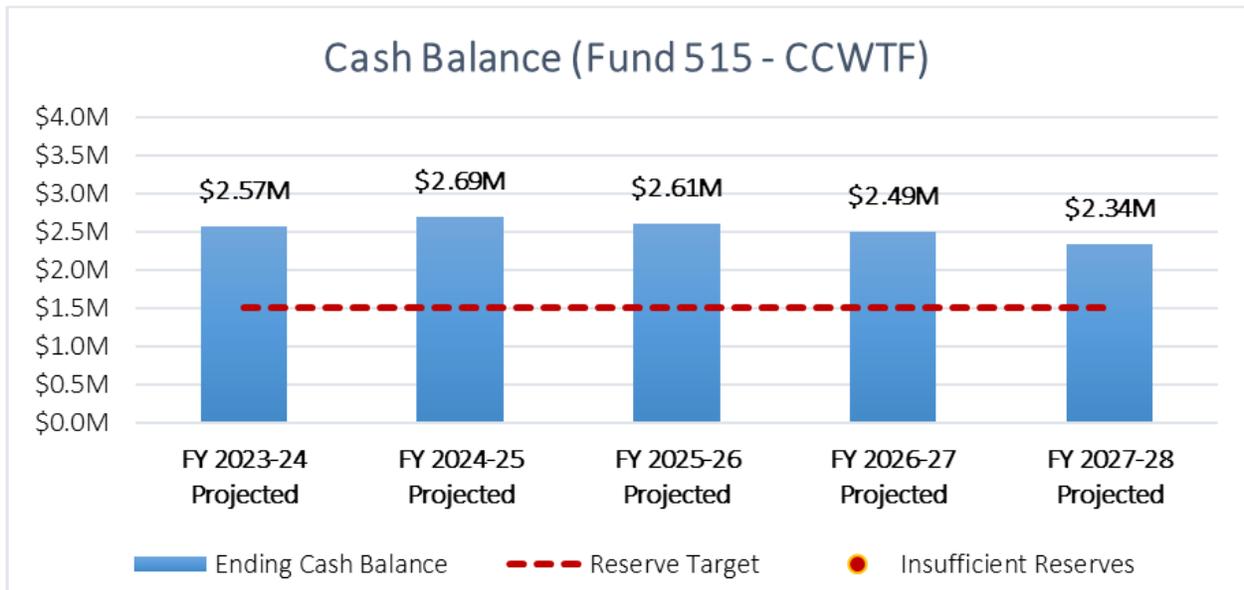


Figure 3-2: Status Quo Financial Plan Cash Balance Summary



City of Malibu 2024 Wastewater and Recycled Water Rates Update

3.7 PROPOSED FINANCIAL PLAN

PROPOSED REVENUE ADJUSTMENTS

The status quo financial plan demonstrates that currently adopted wastewater and recycled water rates are insufficient to fully recover Fund 515’s projected expenses over the study period. In order to ensure that Fund 515 generates sufficient revenues to fully recover its expenses and avoid an operating deficit, WRE recommended that the City consider revenue adjustments (i.e., proposed rate revenue increases) over the four-year rate-setting period.

Various proposed revenue adjustment scenarios over the study period were considered and refined based on input from City staff and the City’s Public Works Commission. During a Public Works Commission meeting on January 24, 2024, WRE and City staff presented multiple revenue adjustment scenarios, and were directed to proceed with the proposed revenue adjustments shown below (see Table 3-9). The proposed revenue adjustments include 2% increases each July over the next four fiscal years. Note the cumulative impact of annual revenue adjustments over the four-year rate-setting period.

Table 3-9: Proposed Quo Revenue Adjustments

Description	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
Proposed Revenue Adjustments					
Revenue Adjustment %	N/A	2%	2%	2%	2%
Effective Date	N/A	July 1, 2024	July 1, 2025	July 1, 2026	July 1, 2027
Months Effective in Fiscal Year	N/A	12	12	12	12
Additional Rate Revenue					
FY 2023-24 Revenue Adjustment	\$0	\$0	\$0	\$0	\$0
FY 2024-25 Revenue Adjustment		\$45,944	\$47,038	\$47,038	\$47,038
FY 2025-26 Revenue Adjustment			\$47,979	\$47,979	\$47,979
FY 2026-27 Revenue Adjustment				\$48,938	\$48,938
FY 2027-28 Revenue Adjustment					\$49,917
Total	\$0	\$45,944	\$95,017	\$143,956	\$193,873

PROPOSED FINANCIAL PLAN

Proposed financial plan projections were developed to evaluate the sufficiency of the proposed revenue adjustments over the study period (see Table 3-10). The proposed financial plan is also summarized in graphical format (see Figure 3-3 and Figure 3-4) The proposed financial plan proforma shown on the following page is similar to the status quo financial plan proforma from Table 3-8. The primary difference is the inclusion of additional revenue from the proposed revenue adjustments. Under the proposed financial plan, revenues are projected to meet expenses in all years while maintaining healthy reserve levels.

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Table 3-10: Fund 515 Proposed Financial Plan Proforma

Line	Description	FY 2023-24	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	<u>FUND 515 CASH FLOW</u>					
2	Source of Funds					
3	Revenue from Current Rates	\$2,303,289	\$2,297,212	\$2,351,907	\$2,351,907	\$2,351,907
4	Revenue Adjustments	\$0	\$45,944	\$95,017	\$143,956	\$193,873
5	Interest Earnings	\$25,051	\$25,723	\$27,358	\$27,506	\$27,806
6	Other Revenues	\$0	\$0	\$0	\$0	\$0
7	General Fund Loan Proceeds	\$0	\$0	\$0	\$0	\$0
8	Total Source of Funds	\$2,328,340	\$2,368,879	\$2,474,283	\$2,523,369	\$2,573,586
9						
10	Use of Funds					
11	O&M: Salaries & Benefits	\$94,476	\$98,255	\$102,185	\$106,273	\$110,524
12	O&M: Operations & Maintenance	\$1,978,591	\$2,107,095	\$2,357,269	\$2,387,184	\$2,420,994
13	General Fund Loan Repayment	\$188,113	\$0	\$0	\$0	\$0
14	Total Use of Funds	\$2,261,180	\$2,205,350	\$2,459,454	\$2,493,457	\$2,531,517
15						
16	Net Cash Flow¹¹	\$67,160	\$163,528	\$14,828	\$29,912	\$42,068
17						
18	<u>FUND 515 CASH RESERVES</u>					
19	Projected Cash Balance					
20	Beginning Cash Balance	\$2,505,121	\$2,572,281	\$2,735,810	\$2,750,638	\$2,780,550
21	Net Cash Flow	\$67,160	\$163,528	\$14,828	\$29,912	\$42,068
22	Ending Cash Balance	\$2,572,281	\$2,735,810	\$2,750,638	\$2,780,550	\$2,822,619
23						
24	<i>Reserve Target</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>	<i>\$1,500,000</i>
25	<i>Reserve Target Met?</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>

¹¹ [Line 16] = [Line 8] – [Line 14]

City of Malibu 2024 Wastewater and Recycled Water Rates Update

Figure 3-3: Proposed Financial Plan Cash Flow Summary

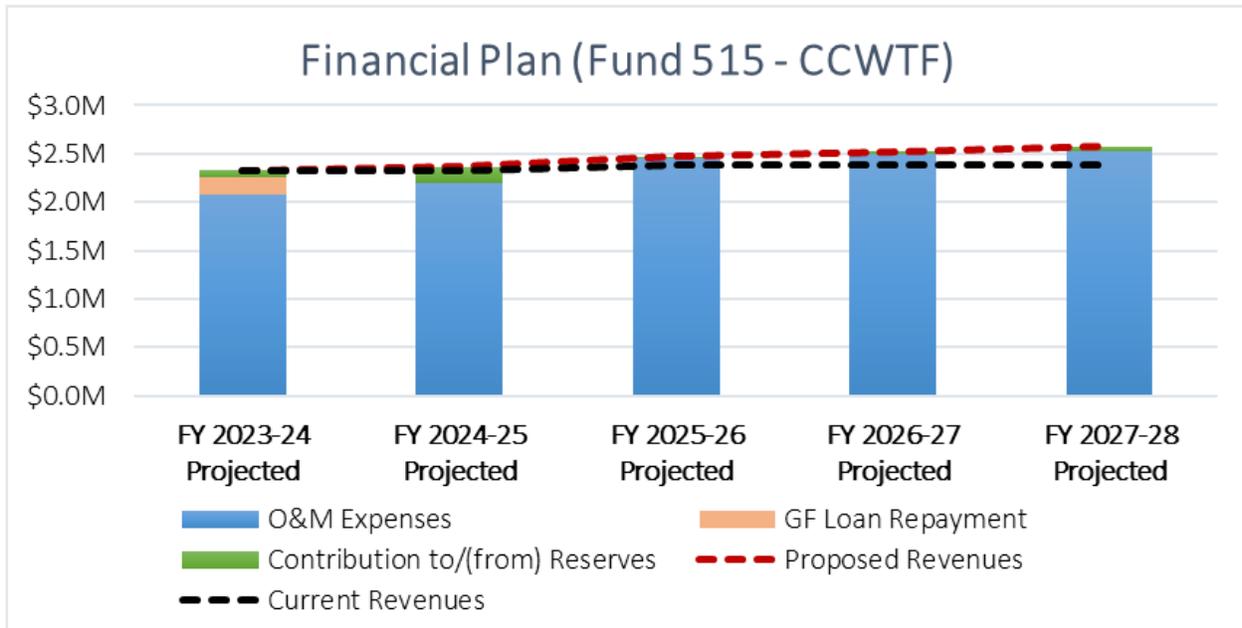
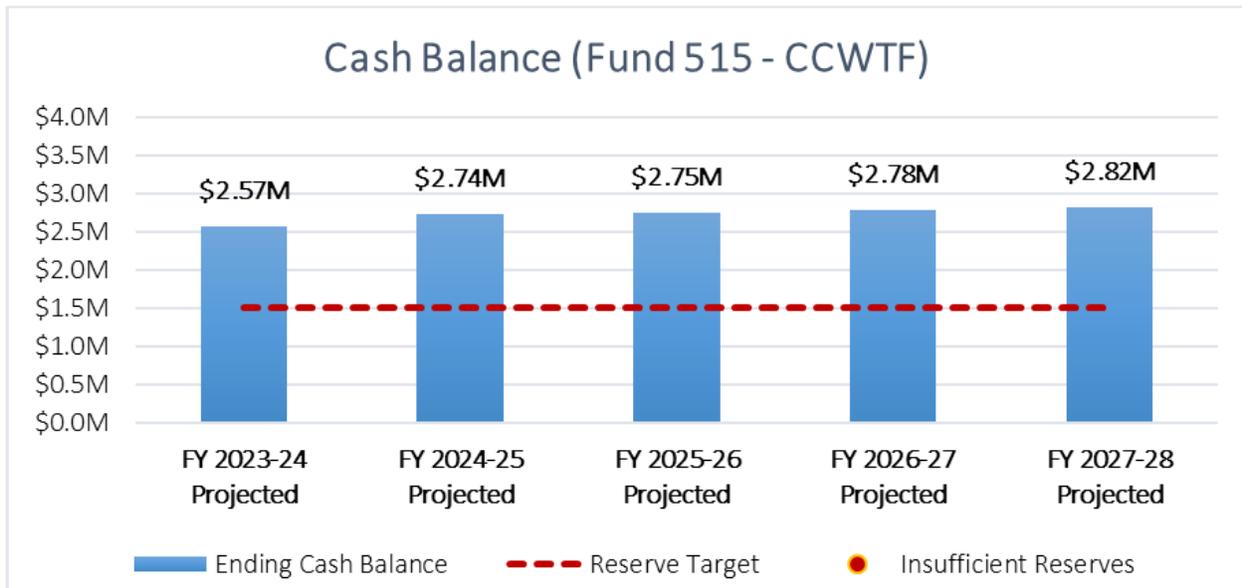


Figure 3-4: Proposed Financial Plan Cash Balance Summary



4. RATE DESIGN

4.1 RATE DESIGN METHODOLOGY

A proposed four-year wastewater and recycled water rate schedule was developed based on the results of the proposed financial plan in Section 3 as well as additional calculations presented in this section. The key steps in the rate development process were as follows:

- **Rate structure evaluation:** The existing wastewater and recycled water rate structure was evaluated, and potential changes were identified and considered. Proposed rate structure changes are typically intended to address specific policy objectives or to improve legal defensibility. No rate structure changes were proposed as a result of this study.
- **Wastewater rate development:** Proposed wastewater charges were calculated directly from the results of the proposed financial plan by escalating existing charges by the proposed revenue adjustment percentages. This is slightly different from the wastewater rate calculation methodology utilized in the City's two prior wastewater and recycled water rate studies, during which wastewater rates were calculated directly from annual expense projections. The updated methodology was employed in order to reduce the level rate volatility from year to year by smoothing out annual rate increases.
- **Recycled water rate development:** Proposed recycled water rates were calculated based on the existing methodology utilized in the City's two prior wastewater and recycled water rate studies. This methodology provides for the development of recycled water rates based on the allocation of appropriate costs related to providing recycled water service to customers. WRE reviewed the existing methodology and did not identify any necessary updates or modifications.

4.2 RATE STRUCTURE EVALUATION

The City's existing wastewater and recycled water rate structure was evaluated, and potential changes were considered. However, no rate structure changes were recommended as a result of this evaluation. City staff indicated satisfaction with the existing rate structure, as it provides clear customer understanding due to its simple structure as well as revenue stability due to its reliance on fixed charges. WRE also evaluated the existing tier allotments for recycled water customers within Assessment District No. 2015-1. It is recommended that the Tier 1 monthly allotment of 14 HCF per EDU remain unchanged, as the underlying flow and water loss assumptions used to establish the existing tier allotment during the prior two rate studies were reviewed and confirmed.

4.3 WASTEWATER RATE DEVELOPMENT

A proposed four-year wastewater rate schedule was calculated by increasing current FY 2023-24 monthly wastewater charges from Table 3-1 by the proposed revenue adjustment percentages from Table 3-9 (see Table 4-1). All proposed rates are rounded up to the nearest cent. Under this methodology, the total proposed annual rate revenue requirement (which is equal to revenue from

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current rates plus revenue adjustments per Table 3-10) is assumed to be recovered by wastewater charges alone, as no recycled water sales are assumed over the four-year rate-setting period.

Table 4-1: Proposed Wastewater Rate Calculations

Wastewater Rate Calculations	FY 2023-24 Current (7/1/2023)	FY 2024-25 Proposed (7/1/2024)	FY 2025-26 Proposed (7/1/2025)	FY 2026-27 Proposed (7/1/2026)	FY 2027-28 Proposed (7/1/2027)
Proposed Revenue Adjustment	N/A	2.0%	2.0%	2.0%	2.0%
Monthly Wastewater Charge (per EDU)	\$506.44	\$516.57	\$526.91	\$537.45	\$548.20
<i>Change (\$)</i>	<i>N/A</i>	<i>\$10.13</i>	<i>\$10.34</i>	<i>\$10.54</i>	<i>\$10.75</i>

4.4 RECYCLED WATER RATE DEVELOPMENT

RECYCLED WATER RATE COST ALLOCATION BASIS

Proposed recycled water rates were calculated based on the existing calculation methodology employed in the prior two rate studies in 2017 and 2021. This methodology allocates costs differentially to each of the three volumetric recycled water rates, as follows:

- **Inside Assessment District Tier 1:** No costs are allocated to recycled water use by Inside Assessment District customers that stay within their Tier 1 monthly allotment of 14 HCF per EDU. This assumes that Tier 1 recycled water use does not exceed the customer’s wastewater flow generation (after accounting for water loss), and therefore allocable costs are already adequately recovered by the associated wastewater charges per EDU.
- **Inside Assessment District Tier 2:** Additional O&M costs related to tertiary treatment are allocated to recycled water use by Inside Assessment District customers that exceed their Tier 1 monthly allotment of 14 HCF per EDU. Tertiary treatment is required to treat wastewater to recycled water standards. Therefore, it is appropriate for Tier 2 recycled water users to contribute towards additional tertiary treatment-related O&M expenses attributable to recycled water use in excess of customers’ own wastewater generation.
- **Outside Assessment District:** Outside Assessment District recycled water customers are not subject to wastewater charges (to recover CCWTF O&M expenses) or Assessment District charges (to recover CCWTF Phase One capital expenses). Therefore, it is appropriate for outside recycled water users to contribute towards both tertiary treatment-related O&M expenses and Phase One capital expenses in order to ensure equitable contributions towards CCWTF cost recovery.

RECYCLED WATER O&M COST COMPONENT CALCULATION

The O&M cost component calculated below (see Table 4-2) represents the O&M unit rate per HCF to be applied to proposed Inside Assessment District Tier 2 and Outside Assessment District recycled water rates. The first step was to identify tertiary-related O&M expenses (see Lines 1-4). O&M expenses were first limited to contractual and pass-through costs, which represent the direct costs of

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operating the CCWTF and exclude City staff salaries/benefits and other general/administrative expenses (see Line 1). To estimate tertiary-specific O&M expenses, two factors were applied. Firstly, a factor equal to the ratio of treatment-related Phase One construction costs to total Phase One construction costs was applied to isolate treatment-related costs from wastewater collection-related costs (see Line 2). Secondly, a factor equal to the estimated ratio of tertiary-related treatment costs to all treatment-related costs was applied to isolate tertiary treatment costs from primary and secondary treatment costs (see Line 3). Total tertiary treatment-related O&M expenses (Line 4) were divided by estimated annual recycled water production in HCF (Line 5) to determine the O&M cost component per HCF in each year over the rate-setting period (Line 6).

Table 4-2: Recycled Water O&M Cost Component Calculation

Line	O&M Cost Component Calculation	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28
1	Annual Contractual & Pass-Through O&M Expenses ¹²	\$1,549,539	\$1,777,696	\$1,805,412	\$1,836,949
2	Treatment Plant Share of Phase One Construction Costs (%) ¹³	56.5%	56.5%	56.5%	56.5%
3	Tertiary Share of Treatment Plant Costs (%) ¹⁴	20.0%	20.0%	20.0%	20.0%
4	Allocable O&M Expenses ¹⁵	\$175,089	\$200,869	\$204,001	\$207,564
5	Total Annual Recycled Water Production (HCF) ¹⁶	70,956	70,956	70,956	70,956
6	O&M Cost Component (per HCF)¹⁷	\$2.47	\$2.83	\$2.88	\$2.93

RECYCLED WATER CAPITAL COMPONENT CALCULATION

The capital cost component calculated below (see Table 4-3) represents the capital unit rate per HCF to be applied to proposed Outside Assessment District recycled water rates. This is necessary because outside recycled water users do not contribute towards CCWTF Phase One construction costs via Assessment District No. 2015-1 charges. Tertiary treatment-related Phase One construction costs (Line 3) were first quantified by multiplying total Phase One treatment plant construction costs (Line 1) by the estimated ratio of tertiary-related treatment costs to all treatment-related costs (see Line 2). This resulting value (Line 3) was then annualized by dividing by the useful life of the relevant facilities (Line 4) to estimate annualized tertiary-related treatment plant construction costs (Line 5). Total annualized tertiary-related treatment plant construction costs (Line 5) were divided by

¹² Contractual and pass-through O&M expenses include WTF Maintenance (5611), Equipment Maintenance (5640), Electricity & Gas (5722), Natural Gas (5724), Biosolids Disposal (5725-01), Chemical Supplies (6161), and Motor Fuel (6500) from Table 3-6.

¹³ Per the 2017 Wastewater and Recycled Water Rates Study Report.

¹⁴ Per the 2017 Wastewater and Recycled Water Rates Study Report.

¹⁵ [Line 4] = [Line 1] × [Line 2] × [Line 3]

¹⁶ Assumes 55.87 million gallons per year in total wastewater flows and a 5% recycled water loss factor per the 2017 Wastewater and Recycled Water Rates Study Report.

¹⁷ [Line 6] = [Line 4] ÷ [Line 5]

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estimated annual recycled water production in HCF (Line 6) to determine the capital cost component per HCF, which does not vary by year over the rate-setting period (Line 7).

Table 4-3: Recycled Water Capital Cost Component Calculation

Line	Capital Cost Component Calculation	All Years
1	Phase One Treatment Plant Construction Costs ¹⁸	\$25,989,666
2	Tertiary Share of Treatment Plant Costs (%) ¹⁹	20.0%
3	Tertiary-Related Treatment Plant Construction Costs ²⁰	\$5,197,933
4	Life of Tertiary-Related Treatment Plant Capital Assets ²¹	20 years
5	Tertiary-Related Treatment Plant Construction Costs (Annualized) ²²	\$259,897
6	Total Annual Recycled Water Production (HCF) ²³	70,956
7	Capital Cost Component (per HCF)²⁴	\$3.66

PROPOSED RECYCLED WATER RATE CALCULATIONS

Proposed recycled water rates over the four-year rate-setting period were calculated based on the O&M cost components from Table 4-2 and the capital cost component from Table 4-3 (see Table 4-4). All proposed rates are rounded up to the nearest cent. The O&M cost component was applied to Inside Assessment District Tier 1 and Outside Assessment District recycled water rates only. The capital cost component was applied to the Outside Assessment District recycled water rate only.

¹⁸ Per the *Modified Engineer's Report: City of Malibu Assessment District 2015-1 (Civic Center Wastewater Treatment Facility – Phase 1)*.

¹⁹ Per the *2017 Wastewater and Recycled Water Rates Study Report*.

²⁰ [Line 3] = [Line 1] × [Line 2]

²¹ Per the *2017 Wastewater and Recycled Water Rates Study Report*.

²² [Line 5] = [Line 3] ÷ [Line 4]

²³ Assumes 55.87 million gallons per year in total wastewater flows and a 5% recycled water loss factor per the *2017 Wastewater and Recycled Water Rates Study Report*.

²⁴ [Line 7] = [Line 5] ÷ [Line 6]

City of Malibu 2024 Wastewater and Recycled Water Rates Update

Table 4-4: Proposed Recycled Water Rate Calculations

Recycled Water Rate Calculations	FY 2023-24 Current (7/1/2023)	FY 2024-25 Proposed (7/1/2024)	FY 2025-26 Proposed (7/1/2025)	FY 2026-27 Proposed (7/1/2026)	FY 2027-28 Proposed (7/1/2027)
Inside Assessment District: Tier 1					
O&M Cost Component	N/A	N/A	N/A	N/A	N/A
Capital Component	N/A	N/A	N/A	N/A	N/A
Proposed Rate	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<i>Change (\$)</i>	<i>N/A</i>	<i>\$0.00</i>	<i>\$0.00</i>	<i>\$0.00</i>	<i>\$0.00</i>
Inside Assessment District: Tier 2					
O&M Cost Component	2.36	2.47	2.83	2.88	2.93
Capital Component	N/A	N/A	N/A	N/A	N/A
Proposed Rate	\$2.36	\$2.47	\$2.83	\$2.88	\$2.93
<i>Change (\$)</i>	<i>N/A</i>	<i>\$0.11</i>	<i>\$0.36</i>	<i>\$0.05</i>	<i>\$0.05</i>
Outside Assessment District					
O&M Cost Component	\$2.36	\$2.47	\$2.83	\$2.88	\$2.93
Capital Component	\$3.57	\$3.66	\$3.66	\$3.66	\$3.66
Proposed Rate	\$5.93	\$6.13	\$6.49	\$6.54	\$6.59
<i>Change (\$)</i>	<i>N/A</i>	<i>\$0.20</i>	<i>\$0.36</i>	<i>\$0.05</i>	<i>\$0.05</i>

4.5 PROPOSED WASTEWATER AND RECYCLED WATER RATE SCHEDULE

A combined schedule of current and proposed wastewater and recycled water rates is shown in Table 4-5 below. Note that charges separately collected by Assessment No. 2015-1 to recover CCWTF Phase One capital costs are not included.

Table 4-5: Proposed Wastewater and Recycled Water Rate Schedule

Proposed Rate Schedule	FY 2023-24 Current (7/1/2023)	FY 2024-25 Proposed (7/1/2024)	FY 2025-26 Proposed (7/1/2025)	FY 2026-27 Proposed (7/1/2026)	FY 2027-28 Proposed (7/1/2027)
Wastewater					
Monthly Wastewater Charge (per EDU)	\$506.44	\$516.57	\$526.91	\$537.45	\$548.20
Recycled Water					
Inside Assessment District: Tier 1 ²⁵ (per HCF)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Inside Assessment District: Tier 2 ²⁶ (per HCF)	\$2.36	\$2.47	\$2.83	\$2.88	\$2.93
Outside Assessment District (per HCF)	\$5.93	\$6.13	\$6.49	\$6.54	\$6.59

²⁵ Tier 1 includes all recycled water use up to 14 HCF per EDU per month.

²⁶ Tier 2 includes all recycled water use in excess of 14 HCF per EDU per month.