

City of Fresno

Solid Waste Management Division Five Year Residential Rate Plan FY 2025 – FY 2029







590 Ygnacio Valley Road, Suite 105 Walnut Creek, California 94596 Telephone: 925/977-6950 www.hfh-consultants.com

Robert D. Hilton, Emeritus John W. Farnkopf, PE Laith B. Ezzet, CMC Richard J. Simonson Marva M. Sheehan, CPA Robert C. Hilton

December 6, 2023

Mr. Brock Buche Director of Public Utilities City of Fresno 1626 E Street Fresno, CA 93706

Subject: Solid Waste Management Division Five-year Residential Rate Plan FY 2025 – FY

2029

Dear Mr. Buche:

We have completed the five-year rate plan for the City of Fresno Solid Waste Management Division for rate years FY 2025 – FY 2029. Our recommendations and related assumptions and calculations are documented in the enclosed report.

* * * *

We are pleased to have had the opportunity to assist the City of Fresno with this study and would like to thank you for your support during the project.

If you have any questions, please call me at (925) 977-6957.

Sincerely,

HF&H CONSULTANTS, LLC

Rick Simonson

Senior Vice President

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
Review of Division Rate Model	
BACKGROUND, OBJECTIVES, AND APPROACH	
BackgroundRate Plan ObjectivesApproach	5
COST-OF-SERVICE REVIEW	
Proposed Rate Adjustments Residential Operating Reserve Affordability Credit Program Limitations	21 21
	Review of Division Rate Model Proposed Solid Waste Rate Increases FY 2025 – FY 2029 BACKGROUND, OBJECTIVES, AND APPROACH Background

COMMONLY USED ABBREVIATIONS/DEFINITIONS

City City of Fresno

Division or SWMD Solid Waste Management Division

DPU Department of Public Utilities

FY Fiscal Year

Five-Year Rate Cycle Consists of Fiscal Years (FY) 2025 through FY 2029 (July 1, 2024 - June 30,

2029)

FSL Fresno Sanitary Landfill

HF&H Consultants, LLC

Material Type Solid Waste, Recyclable Materials, and Organic Materials collected from

residents in separate containers

OAD Orange Avenue Disposal Company, Inc. City's disposal and transfer station

contractor

OCU Operation Clean Up

Rate Model

Excel-based five-year planning model developed by the City's original rate consultant and updated for FY 2025 through FY 2029 by HF&H and with assistance from City staff

Residential Customers

Residential properties with four or fewer dwelling units on the

property

Service Level

The level of service provided to customers. Basic service consists of three 96-gallon containers; alternate service consists of a 64-gallon solid waste container and 96-gallon recyclables and green waste/organics containers.

SECTION I: EXECUTIVE SUMMARY

The Solid Waste Management Division (Division or SWMD) of the Department of Public Utilities (DPU) provides solid waste, recycling, and green waste/organic material collection services to Residential customers within the City of Fresno (City). Services for commercial properties and Residential properties with five or more dwelling units are provided by Republic Services (northern section of the City) and Mid-Valley Disposal (southern section of the City), through franchise agreements with the City and are not a part of this rate model.

HF&H Consultants, LLC (HF&H) was retained by the Division to independently assess and evaluate the existing Residential solid waste rate model (Rate Model or Model) and propose Residential rates for the next five-year rate cycle, consisting of Fiscal Years (FY) 2025 through FY 2029 (July 1, 2024 - June 30, 2029) to provide the necessary revenue to adequately fund SWMD Enterprise Fund operations, capital, and reserves during that period.

The evaluation focused on the Rate Model utilized by the Division to record and project revenues and expenses and the inclusion and allocation of costs within that Model.

Our review of the Rate Model and the associated costs found the following:

I.A. Review of Division Rate Model

Prior to beginning our review, we discussed assumptions and significant changes in programs and costs to be included in the Rate Model with Division staff. Based on that discussion the following assumptions and information were utilized in the Rate Model:

- The current Residential collection service rates have not been adjusted since September 2009.
- The proposed Residential collection service rates are to be set at a level that will provide
 the revenue needed to sustain a 45-day Residential operating reserve in accordance with
 the Department of Public Utilities Financial Management Plan and Guiding Principles.
- The proposed Residential collection service rates include tipping fee increases as provided for in the City's agreements with Kochergen Farms Composting, West Coast Waste, and the Orange Avenue Disposal Company, Inc. (OAD), and all related amendments, as approved by the City Council and as discussed in Section II.C.ii of this report.
- Inclusion of costs related to compliance with the State's implementation of Senate Bill (SB) 1383, which requires the integration of food waste into the green waste/organic material collection container, recovery of edible food waste, outreach and education activities, monitoring, and enforcement of Residential customer compliance and periodic reports to the State regarding the City's green waste/organic materials collection program. The related costs are partially offset by one-time grant funds (approximately \$770,000) received from the State in FY 2024.

- The proposed Residential collection service rates include recently approved increases in labor costs for Local 39 personnel.
- Continued funding of the City's Operation Clean Up (OCU) program, which allows for residents to place items too large to fit in their collection carts (i.e., additional green waste and/or bulky items) at the curb for collection. The OCU pickups are at a designated date scheduled by the City.
- Beginning in FY 2026, adding a bulky-item collection program which will allow residents
 to schedule a special curbside collection, one time per year, by appointment only. This
 program will allow residents to place bulky-items (e.g., sofa, cabinets, other furniture)
 for pick up that are too large to be placed in their collection containers at their curb to
 be picked up on the appointment date.
- The Division's anticipated portion of the planned improvements of the DPU Operations & Maintenance Facility (DPU O&M Facility), following the completion of a facilities master plan. In anticipation of financial needs, the rate model sets aside \$2,779,144 in FY 2028 and \$2,779,144 in FY 2029 for these capital improvements.
- Replacement of aging collection fleet will be financed through lease-to-own purchase agreements to minimize immediate rate impacts.
- Funding the monitoring and maintenance of the City's closed Fresno Sanitary Landfill (FSL), as required by Federal and State regulations.

As part of our engagement, with the assistance of City staff, HF&H updated the City's financial planning model (Rate Model), which was first developed by the City's rate consultant more than 10 years ago. Our review found that the Rate Model is mathematically accurate and logically consistent in its application.

In addition, our review noted the following:

- The Division has projected a budget shortfall for the current FY 2024;
- The projected operating budget shortfall for FY 2024 will deplete the Division's Residential operating reserve before the end of FY 2024; As such, the Division will receive a \$5.0 million intradepartmental loan from the City's wastewater utility to fund operating costs and avoid depleting reserves by the end of FY 2024. The loan will be repaid by the Division over five years (FY 2025-FY 2029), with an anticipated interest rate of 2.02% based on the City's recent rate of return on City investments;
- With annual rate adjustments throughout the five-year rate planning period and the loan from the wastewater utility, the Division will be able to achieve the 45-day Residential operating reserve requirement by the end of the five-year rate plan (FY 2029); and,
- We also recommend that the Division replace the senior low-income discount rate and replace it with an "Affordability Credit Program" that is not funded with monies from the Division's enterprise fund. In accordance with State law, solid waste ratepayer revenue cannot be used to pay for discounts for particular customers.

I.B. Proposed Solid Waste Rate Increases FY 2025 – FY 2029

To provide the necessary funding for the Residential collection programs, the Division will need to increase revenue from rates by implementing a series of rate adjustments during the upcoming five-year rate cycle.

Based on results from the updated Rate Model and input from Division staff we have developed a series of five rate revenue increases to fully fund the Division's projected Operations & Maintenance (O&M) and Capital costs and achieve the 45-day Residential operating reserve requirement, over the next five fiscal years. The revenue generated is necessary to fund the following:

- Weekly collection of a gray 64- or 96-gallon solid waste container.
- Weekly collection of a blue 96-gallon recyclables container.
- Weekly collection of a green 96-gallon green waste/organic materials container.
- One OCU event per year for each Residential customer on specific dates determined by the City.
- One bulky item curbside collection per year (beginning FY 2026), by appointment.
- Compliance, monitoring, and reporting requirements mandated by SB 1383.
- The Division's anticipated portion of improvements for the DPU O&M Facility.
- Residential solid waste ratepayers' fair share of the City's litter control program. Litter
 and trash falling from trucks and containers contributes to the need for litter control
 services in Residential areas. The costs of the litter control program were allocated to
 Residential and commercial collection based on their estimated contribution to the need
 for litter control services.
- Replacement of the Division's aging collection fleet; and,
- Perform the necessary monitoring and maintenance at the FSL.

The proposed rates as summarized in **Table ES-1** will produce sufficient revenue to allow the Division to fund the Residential collection program and achieve the required 45-day Residential operating reserve balance by the end of the five-year rate cycle. As shown in **Table ES-1**, the first rate adjustment will be effective July 1, 2024, followed by four additional adjustments occurring each July 1 from 2025 through 2029. Note: In addition to providing for an overall increase in revenue, the July 1, 2024, rate adjustments reflect the realignment of rates to each Service Level (i.e., 64-gallon and 96-gallon solid waste containers) to reflect the current costs of service as required by Proposition 218. As such, the July 1, 2024, proposed rates re-align each Service Level (i.e., solid waste container size) with the actual cost of service. Once realigned, the rates for each Service Level will increase at the same percentage each year thereafter. Our analysis of the costs and the necessary annual change to rates is discussed in more detail in **Section II** of this report.

Table ES-1. Proposed Rates

	Current	Proposed Rates (\$/month)				
Container Size	Rate	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
rate adjustment ef	fective date:	7/1/2024	7/1/2025	7/1/2026	7/1/2027	7/1/2028
Solid Waste Container Size						
96-gallon Container	\$25.37	\$30.87	\$35.50	\$38.70	\$41.99	\$45.24
\$ Change		\$5.50	\$4.63	\$3.20	\$3.29	\$3.25
64-gallon Container	\$19.20	\$28.12	\$32.34	\$35.25	\$38.25	\$41.21
\$ Change		\$8.92	\$4.22	\$2.91	\$3.00	\$2.96

SECTION II: BACKGROUND, OBJECTIVES, AND APPROACH

II.A. Background

Solid Waste customers within the City of Fresno are divided into two service classes. The Residential service class includes all Residential properties with four or fewer dwelling units on the property, while the commercial service class includes commercial and multi-family properties with more than four dwelling units on the property. The City is the designated collection hauler for Residential customers within the City and SWMD is responsible for providing collection services to the nearly 119,000 Residential customers. Commercial and multi-family customers are serviced by franchised waste collection companies and are not included in this rate model. Therefore, the proposed rates are only for services provided to Residential customers.

The City provides its Residential customers with a default collection Service Level consisting of three 96-gallon containers for solid waste, recyclables, and green waste/organic materials. For those customers who produce limited amounts of solid waste, the City offers an alternate Service Level utilizing a 64-gallon solid waste container and 96-gallon recyclables and green waste/organics containers. Customers are billed a flat rate for the three-container service based on the size of their solid waste container. The monthly Residential rate has not been adjusted since September 2009; the Division has instead used Residential operating reserve monies to stabilize the Residential rates.

The City also provides additional service options: an additional 96-gallon solid waste container, an additional 64-gallon solid waste container, an additional 96-gallon green waste/organics material container, or an additional 96-gallon recyclables container. Additional containers are billed at a separate rate in addition to the standard three container service rate.

II.B. Rate Plan Objectives

The five-year rate plan was developed to meet the objective of setting rates that will provide sufficient revenue to adequately fund the Division's projected Operations & Maintenance (O&M) and capital costs and achieve the 45-day Residential operating reserve requirement, during the period FY 2025 – FY 2029 while meeting the requirements of Proposition 218.

II.C. Approach

The Division's current Rate Model provides revenue and expense projections over a five-year planning period and allocates those expenses among the Division's sections. Our review of the Model was performed to:

- Determine the mathematical accuracy and logical consistency of the Rate Model; and,
- Verify that rates are calculated accurately, that they comply with the requirements of Proposition 218, and that they will ensure the funding necessary to satisfy the Division's projected annual revenue requirements.

II.C.i. Review of General Model Characteristics

We reviewed the Rate Model for FY 2025 - FY 2029 to obtain a comprehensive understanding of the characteristics of the Model and confirm mathematical accuracy and logical consistency.

Our review found that the Rate Model is mathematically accurate and logically consistent, and we noted no material errors or miscalculations. We noted that the Rate Model has been updated to reflect actual FY 2023 revenues and expenditures.

In addition, we reviewed the underlying support for the Rate Model's revenue and expense projections through the five-year planning period.

II.C.ii Review of Rate Revenue Requirement

We reviewed the Division's revenue requirements, which are based on the most current annual budget documents, to determine the ability of the revenue generated by the projected rates in the Rate Model to support the appropriate program costs over the five-year rate cycle of FY 2025 through FY 2029 and to maintain the required 45-day Residential operating reserve balance. The revenue requirement to be funded through the rate structure consists of the Division's projected operating expenditures less non-rate revenues.

A model was developed to derive revenue requirements for FY 2025 through FY 2029. The revenue requirements represent the costs that must be covered by revenue from rates and other sources. For this study, we have relied on the City's FY 2024 budget which was reviewed and approved by the City Council. Various inflationary assumptions based on the last several years of financial data and market trends were applied to the FY 2024 budget based on discussions with staff. **Table 1** summarizes the key assumptions used to project costs through FY 2029.

Table 1. Cost Projection Assumptions by Fiscal Year

Table 1. Cost Projection Assumptions by Tiscal Teal								
Inflationary Factors and Cost Projection	per Budget			Projected				
Assumptions	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029		
Interest on Reserve Balance	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%		
General inflation	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%		
Salary/Wage Increases - Local 39	4% [1]	5.0% [2]	3.0%	3.0%	3.0%	3.0%		
Salary/Wage Increases - All Others	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%		
Benefits cost increases	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%		
Operations & Maintenance Inflation	5.0%	5.0%	3.0%	3.0%	3.0%	3.0%		
Fleet Fuel	41.0%	5.0%	5.0%	5.0%	5.0%	5.0%		
Account Growth	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%		
Solid Waste Tonnage	163,985	167,264	170,610	174,022	177,502	181,052		
Recycling Tonnage	38,550	39,167	39,793	40,430	41,077	41,734		
Green Waste/Organic Tonnage	82,262	86,376	90,694	95,229	99,990	104,990		
Solid Waste Tipping Fee (\$/Ton)	\$44.65	\$45.11	\$46.09	\$47.10	\$48.15	\$49.22		
Recyclable Material Processing Tip Fee (\$/Ton)	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00		
Green Waste/Organic Tipping Fee (\$/Ton)	\$22.50	\$27.00	\$30.00	\$31.50	\$32.50	\$33.50		
Bad Debt	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%		

^[1] Comprised of two increases: 3% effective 6/19/23 and 1% effective 12/18/23

The application of these assumptions to the FY 2024 Budget are summarized graphically in **Figure 1** and other key assumptions are described in more detail below **Figure 1**. During our review we noted the following items:

• The current Residential collection service rates have not been adjusted since September 2009.

^[2] Comprised of two increases: 3% effective 6/17/24 and 2% effective 12/30/24

• The current Residential collection service rate structure is not generating sufficient revenues to support the costs of providing the service. As shown in Figure 1, revenues at current rates (solid black line), are not sufficient to cover projected costs during the five-year planning period (FY 2025 – FY 2029). Without annual rate adjustments during rate years FY 2025 through FY 2029, revenues will remain insufficient to fund the cost of providing Residential services. Further, the past practice of reducing scheduled capital expenditures, specifically the delay of fleet replacement, is no longer a viable alternative, due to the age of the current collection fleet and the extent of the revenue shortfalls.

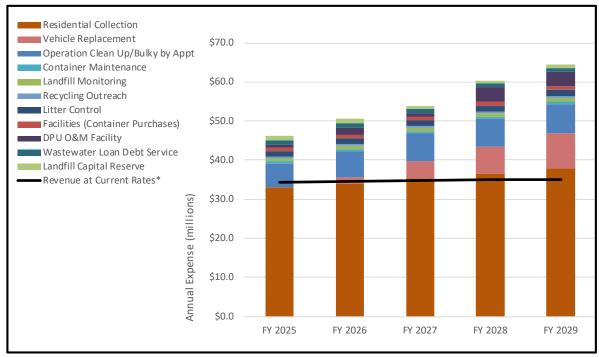


Figure 1. Total Projected Expenses

Description	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Container Maintenance	\$568,643	586,126	\$604,156	\$622,748	641,922
Landfill Monitoring	\$723,497	\$745,255	\$767,669	\$790,758	\$814,543
Recycling Outreach	\$552,223	\$568,809	\$585,893	\$603,490	\$621,617
Residential Collection	\$33,174,529	\$34,044,380	\$35,373,741	\$36,628,370	\$37,985,874
Litter Control	\$1,272,291	\$1,311,877	\$1,352,722	\$1,394,866	\$1,438,353
Operation Clean Up/Bulky by Appt	\$5,932,652	\$6,744,121	\$6,951,284	\$7,165,003	\$7,385,491
Facilities (Container Purchases)	\$979,411	\$1,016,019	\$1,054,147	\$1,093,864	\$1,135,242
Subtotal	\$43,203,246	\$45,016,588	\$46,689,611	\$48,299,101	\$50,023,042
Non-Rate Revenue	(\$574,370)	(\$591,602)	(\$609,350)	(\$627,630)	(\$646,459)
DPU O&M Facility	\$702,533	\$1,832,575	\$818,389	\$3,567,536	\$3,567,536
Wastewater Loan Debt Service	\$1,056,387	\$1,056,387	\$1,056,387	\$1,056,387	\$1,056,387
Vehicle Replacement	\$0	\$1,500,000	\$4,500,000	\$6,750,000	\$9,000,000
Landfill Capital Reserve	\$1,200,000	\$1,150,000	\$750,000	\$750,000	\$750,000
Net Expenses	\$45,587,796	\$49,963,948	\$53,205,038	\$59,795,393	\$63,750,506

^{*}Revenue at Current Rates includes non-rate revenue (i.e., various miscellaneous revenues received from Solid Waste operations such as one-time intradepartmental billing for special project requests, monthly uniform reimbursement from employees, interest, one time vendor refunds, scrap plastics, etc.)

II.C.iii. Container Maintenance

Container Maintenance costs include providing new or exchange containers to Residential customers. The maintenance crew assembles, cleans, and performs daily repair and delivery of containers throughout the City. Container maintenance costs are increasing an average of 3.2% per year based on the various inflationary cost increases (e.g., Salary/Wages, benefits, operations and maintenance, and general inflation), summarized in **Table 1**.

II.C.iv. Landfill Monitoring

The Landfill Monitoring program involves the daily oversight of the post closure maintenance activities of the City's 140-acre former landfill site, the FSL, including the monitoring of the groundwater treatment plant system, wells, and methane recovery system. Quarterly samples are taken from each of the wells and reported to the U.S. Environmental Protection Agency to ensure the environmental resources of the community are protected. Landfill monitoring costs are increasing an average of 3.2% per year based on the various inflationary cost increases (e.g., Salary/Wages, benefits, operations and maintenance, and general inflation) summarized in **Table** 1.

II.C.v. Recycling Outreach

The Recycling outreach program provides the community with various levels and types of recycling education programs, focusing on increasing diversion of material from the landfill. The program reaches all segments of the City's customer base including school children (K-12) who take the recycling and conservation message home to their families. Recycling outreach costs are increasing an average of 3.2% per year based on various inflationary cost increases (e.g., Salary/Wages, benefits, operations and maintenance, and general inflation) summarized in **Table**1. The cost of recyclable material collection activities is included in the Residential collection budget described in **Section II.C.vi**.

II.C.vi. Residential Collection Costs

The Residential Collection program collects municipal solid waste, recycling, and green waste/organic materials (a three-container system) for over 119,000 Residential customers and includes a fleet of over 100 collection and support service vehicles. The Residential section also includes labor and support functions, including the disposal and processing costs associated with disposing of solid waste and processing organic and recyclable materials. Residential Collection costs are increasing an average of 3.8% per year based on various inflationary cost increases (e.g., Salary/Wages, benefits, fuel, disposal fees, operations and maintenance, and general inflation) summarized in Table 1 and described in more detail below. The major factors leading to the increases include:

- Collection Labor Cost Increases. General City staff wage and benefit costs are projected to increase 3.0% per year. In addition, the City recently negotiated higher mid-fiscal-year increases for personnel represented by Local 39, an additional 1% effective 12/18/23 and 2% effective 12/30/2024.
- **Fuel Cost Increases.** Based on the recent historical trends in fuel costs, and request quotes, fuel costs to run the collection fleet are projected to increase 41% in FY 2024. Thereafter, fuel costs are projected to increase by 5.0% per year.

• Solid Waste Disposal Cost Increases. The City receives Residential solid waste disposal and transfer services from the Orange Avenue Disposal Company, Inc. (OAD). This Rate Model reflects the allowed annual increase in the OAD transfer station tipping fees based on the agreed-upon methodology outlined in the agreements with OAD, including all amendments and estimates of future costs allowable under the agreement. The City-approved transfer station tipping fees allow OAD to recover their cost of service for handling and disposing of Residential solid waste collected by the City's Residential collection operations. OAD's tipping fees are projected to increase from the current \$44.65 per ton to \$49.22 per ton by FY 2029. All of the City's Residential solid waste delivered to the transfer station is transported by OAD for disposal at the American Avenue Landfill, which is owned and operated by the County of Fresno. The American Avenue Landfill tipping fees for disposal of the City's Residential solid waste are projected to increase 2.5% per year, per the City's agreement with the County of Fresno.

In addition to the increases in transfer station tipping fees and landfill disposal fees, collected solid waste tons, which are subject to the fees, are projected to increase a net of 2% per year. This increase in tons is due to growth in the City, which is slightly offset by food waste material now required to be placed in residents' green containers, instead of their gray solid waste containers, as required by the passage of SB 1383.

- Green Waste/Organic Processing Cost Increases. The City receives green waste/organics processing disposal and transfer services from Kochergen Farms Composting (Kochergen) and West Coast Waste. This Rate Model reflects the allowed annual increase in the tipping fees based on the agreed-upon methodology outlined in the agreements, including all amendments. The City-approved tipping fees allow Kochergen and West Coast Waste to recover their cost of service for handling and processing of green waste/organic materials collected by the City's Residential collection operations. Tipping fees are projected to increase from the current \$22.50 per ton to \$33.50 per ton by FY 2029. In addition, collected tons, which are subject to the allowed tipping fee, are projected to increase 7% per year due to growth and the recent passage of SB 1383 which requires residents to place all organic materials (i.e., yard waste and food waste) in their green container for collection. Prior to SB 1383 food waste material was placed in customers' gray solid waste containers.
- Recyclable Material Processing Cost Increases. The City receives recyclable material processing service from Cedar Avenue Recycling and Transfer Station (CARTS) and Mid-Valley Recycling (MVD). The recyclable material tipping fees are projected to remain at the current \$20/ton for the duration of the five-year planning period. Collected recyclable material tons, which are subject to the allowed tipping fee, are projected to increase 1.6% per year due to growth.

II.C.vii. Litter Control

The Division's litter control program is responsible for daily clean-up of litter in Residential neighborhoods. Only 50% of the program costs are included here, the remainder is allocated to commercial collection services, based on the City's estimated portion of the total volume of material collected in Residential areas versus commercial areas throughout the City. Projected costs are increasing an average of 3.3% per year based on the inflationary cost increases summarized in **Table 1**.

II.C.viii. Operation Clean Up/Bulky Item Collection by Appointment

The Operation Clean Up (OCU) program currently provides once a year curbside collection service for all City of Fresno Residential solid waste customers to dispose of items too large for regular trash collection. The once per year OCU pickups are provided at pre-set dates by the City. OCU costs are increasing an average of 3.2% per year based on the inflationary cost increases summarized in **Table 1**.

In addition, the City will be adding another bulky item collection service, available by appointment, for residents. Beginning in FY 2026, the Division will allow residents to schedule an appointment, one time per year, for the collection of bulky items. Costs for this program are projected to be \$628,000 in FY 2026 and increasing to \$682,000 by FY 2029 based on various inflationary cost increases (e.g., Salary/Wages, benefits, fuel, operations and maintenance, and general inflation) summarized in **Table 1**.

II.C.ix. Facilities (Container Purchases)

The Facilities section of the Division's budget includes the cost of purchasing new collection containers (three-container system) for Residential solid waste customers to meet new growth and container exchange demands from existing customers. New container costs are increasing an average of 3.8% per year due to growth and recent increases in container costs throughout the solid waste industry.

II.C.x. DPU O&M Facility

In April 2021, DPU purchased the property formerly occupied by the local daily newspaper, the Fresno Bee. The property was acquired to consolidate the DPU Administration, Water, and Solid Waste Management Divisions at a single facility (DPU O&M Facility), with the goal of reducing ongoing facility costs and improving intra-department operations. Fleet management for all the divisions will also be located at the DPU O&M Facility.

Because the site and buildings were originally constructed and operated by a different industry and for a completely different use, DPU is undertaking a facility master planning effort, anticipated to be completed by the end of 2024, to evaluate options for utilizing the site for the DPU O&M Facility. The intent of the master plan process is to determine the needs for the DPU O&M Facility and determine an optimum configuration to accommodate all staff, vehicles, warehouse space, and fleet maintenance operations. Options likely to be explored include, but are not limited to, (1) upgrading and retrofitting the existing building to fit DPU's purposes, (2) reconfiguring the site and utilizing portions of the existing building, and (3) demolishing the existing building and completely rebuilding with a new site configuration.

The future costs of the DPU O&M Facility will be proportionally shared by the previously mentioned operating divisions, and the Division's share of improvements has been calculated to be 31%. In anticipation of the Division's financial contribution, the rate model includes \$5,558,288 for the future DPU O&M Facility capital improvements.

The Division's actual portion of the DPU O&M Facility's costs, which will be determined by the master plan, will almost certainly be higher than the \$5,558,288 included in the rate model. This conclusion is based in part on a 2018 study that evaluated constructing a new corporation yard

at the Southeast Surface Water Treatment Facility (called the Programming Report) to consolidate the Water and Solid Waste Management Divisions. The Programming Report concluded that DPU would need approximately 110,000 square feet of building space and approximately 90,000 square feet of space for shops, storage, and fleet management. The cost of constructing these new facilities was estimated to be approximately \$57 million in 2018 dollars, or \$73 million when escalated to 2023 dollars using the Engineering News Record Construction Cost Index. This equates to a construction cost of approximately \$365 per square foot in 2023 dollars. Soft costs for project administration, design, and construction management generally add approximately 20% to the construction cost, for a total capital cost of approximately \$438 per square foot for the construction of a completely new DPU O&M Facility.

If DPU determines during the master planning process that the best approach to consolidating operations at a new DPU O&M Facility is to upgrade and retrofit the existing building (option 1 listed above) without extensive modification or renovation, the \$5,558,288 included in the rate model would be an appropriate allocation for the Division's 31% share. This conclusion is based on the condition assessment performed as part of the property acquisition due diligence process, the engineer's estimate prepared for the design of site improvements to add security gates, upgrade portions of the perimeter fence, and repave and restripe the parking lot, and industry-accepted values for estimating building utilities and office interior modifications and finishes as a portion of construction costs. The condition assessment report estimated costs to extend the useful life of the building to be approximately \$4.3 million. The engineer's estimate for site improvements is currently \$3.0 million. Finally, the costs of building utilities and office interior modifications and finishes are estimated, under industry-accepted standards, to be approximately 50% of the \$438 per square foot capital cost for constructing a new DPU O&M Facility building, which equates to approximately \$44 million. Together, these costs total \$51.3 million, of which the Division's share is approximately \$16 million.

Reconfiguring the site and using portions of the Fresno Bee building and property for use as a new DPU O&M Facility (option 2 above) would be more expensive than option 1 because it is utilizing less of the existing building, and is estimated to cost approximately 75% of the estimated cost to construct the new DPU O&M Facility, based on industry-accepted data for typical building renovations. The 75% estimate is conservative given that the existing building's current condition and configuration will likely increase these costs. Using 75% of the \$438 per square foot cost equates to approximately \$66 million, of which the Division's share of renovation costs could be approximately \$20 million.

Finally, the Division's share of the cost to demolish the existing building and completely rebuild (option 3 above) would be approximately \$27 million in capital costs using the engineer's estimate from the Programming Report.

Therefore, even under the most conservative scenario, the DPU O&M Facility costs are estimated to exceed the revenue needs included in the rate model. The actual costs of the DPU O&M Facility, as determined by the upcoming master plan, will be incorporated into the next rate update.

II.C.xi. Wastewater Loan Debt Service

Projected revenues at current rates, which will be in effect through the end of FY 2024 (i.e., June 30, 2024) are insufficient to cover projected operating costs for FY 2024. The projected operating

shortfall for FY 2024 will completely deplete the Division's reserves and go negative. To ensure, the Division does not deplete its reserves, the Division will receive a \$5.0 million intradepartmental loan from the City's wastewater utility to bridge the revenue shortfall and cover all operating costs necessary to continue services. The loan will be repaid by the Division over five years (FY 2025-FY 2029), with annual payments of \$1,056,387, which includes interest at 2.02% annually. The anticipated interest rate is based on the City's current internal rate of return on City investments.

II.C.xii. Vehicle Replacement

The Division maintains an internal capital vehicle and equipment purchase plan that is reviewed and updated annually based on the ongoing condition of the collection vehicles and equipment and the ability of the revenue generated by the customer rates to support the needed capital purchases. The proposed rates are projected to provide sufficient revenue to allow the Division to purchase the vehicles and equipment required to conduct collection operations and maintain a sufficient vehicle replacement reserve fund minimum balance during the upcoming five-year rate cycle. The current vehicle replacement plan is to replace approximately 20 vehicles per year. This includes replacing 83 aging collection vehicles, twelve utility vehicles (e.g., pick-up trucks, vans, and flat-bed trucks for the Container Maintenance Section), and three street sweepers during the five-year rate cycle, at a cost of \$63.9 million. To reduce rate impacts, the replacements will be done through a leasing arrangement (which smooths the costs over six fiscal years from the date each vehicle is purchased).

II.C.xiii. Landfill Capital Reserve

In addition to O&M expenses (included in **Section II.C.iv.** above) that are necessary to monitor and maintain the City's closed FSL, the Division will undertake a number of major landfill closure projects during the five-year planning period starting with the first phase in 2024 for regrading and improvements to the Landfill Gas Control Maintenance System. Phase 2 will include needed improvements to the flare station and the Groundwater Treatment and Remediation System. These capital projects are estimated to cost \$9.5 million over the five-year period. 50% of the cost will be funded from the City's General Fund and the remaining 50% (\$4.75 million) will be covered by Residential solid waste rates, at an average annual cost of \$950,000.

This landfill closure project is necessary to comply with State and Federal regulations.

SECTION III. COST-OF-SERVICE REVIEW

The Division provides Residential customers with the following Service Level options:

- Basic Service Levels
 - 96-gallon service consisting of weekly collection of three 96-gallon containers, (solid waste, green waste/organics and recycling);
 - 64-gallon service consisting of weekly collection of one 64-gallon container (solid waste) and two 96-gallon containers, (green waste/organics and recycling);
- Additional Capacity Optional Service Levels
 - Second 96-gallon solid waste container service;
 - Second 64-gallon solid waste container service;
 - Second 96-gallon green waste/organics container service; or,
 - Second 96-gallon recycling container service.

Table 2 summarizes the average annual revenue requirements, by cost categories, needed to fully fund the Division's projected annual O&M and capital costs, which requires an increase in rates in order to add \$9,460,233 in revenues.

Table 2. Cost-of-Service Realignment – Calculation of Revenue Shortfall at Current Rates

Section	Description	Total
412001	Container Maintenance	\$480,204
412002	Landfill Monitoring	\$610,138
412004	Recycling Outreach	\$465,662
412007	Residential Collection Costs	\$28,143,781
412010	Litter Control	\$1,075,221
412011	Operation Clean Up/Bulky by Appt	\$5,428,196
412501	Facilities (Container Purchases)	\$838,354
	Subtotal	\$37,041,554
	Non-Rate Revenue	(\$484,304)
	DPU O&M Facility	\$1,665,781
	Wastewater Loan Debt Service	\$838,871
	Vehicle Replacement	\$3,454,308
	Landfill Capital Reserve	\$730,566
	Total FY 2025 Revenue Requirement	\$43,246,777
	Revenue at Current Rates	\$33,786,545
	Shortfall	(\$9,460,233)

The costs depicted in Table 2 represent the average annual costs for each Section summarized in Figure 1. However, it is important to note that the FY 2025 revenue requirement in **Table 2** is less than the FY 2025 expenses summarized in **Figure 1**, as the average annual operating costs (i.e., subtotal line), depicted in **Table 2**, have been proportionately reduced to exclude revenues from the \$5.0 million Wastewater Division intradepartmental loan, which will be used to stabilize rate increases. The July 1, 2024 rate increase reflects the realignment of rates to each Service

Level (i.e., 64-gallon and 96-gallon containers) to align with the current costs of serving each customer Service Level, as required by Proposition 218. To determine that the rate structure properly apportions the increase by Service Level, in accordance with Proposition 218, we performed the following four procedures:

- 1. We reviewed the accounts and purpose of each cost category (identified in Table 2 above) and allocated the costs between solid waste services, green waste/organics services, and/or recycling services ("Material Types") as follows:
 - a. Container maintenance costs were allocated based on the number of containers serviced for each Material Type;
 - b. Landfill maintenance and monitoring costs were allocated to Solid Waste;
 - c. Recycling outreach costs were allocated to Recycling;
 - d. Residential collection costs (i.e., route-related costs), except costs related to disposal and processing, were allocated based on the number of personnel associated with the collection of each of Material Type;
 - e. Tipping fees for the disposal and processing of materials collected by Residential collection operations were allocated based on projected disposal and/or processing costs, based on the projected tons collected for each Material Type multiplied by each Material Types respective tipping fee;
 - f. Litter control costs were allocated to Solid Waste;
 - g. OCU costs and bulky-by-appointment costs were allocated to Solid Waste;
 - h. Facilities costs, consisting of the purchase of collection containers, were allocated based on the number of containers for each Material Type, adjusted for the price differential between 64 gallon and 96gallon solid waste containers;
 - i. Non-rate revenue was allocated to all three Material Types based on their proportionate share of the total costs described in items 1a-1h above);
 - j. The Division's share of the DPU O&M Facility improvement capital costs were allocated to Solid Waste;
 - k. Vehicle replacement costs were allocated based on the number of collection vehicles for each Material Type; and,
 - I. Landfill post-closure capital costs were allocated to Solid Waste.

This procedure provided solid waste service costs, green waste/organics service costs, and recycling service costs (Material Type costs) by cost category as is presented in **Table 3**.

		-			
Section	Description	Total	Solid Waste	Organics	Recycling
412001	Container Maintenance	\$480,204	\$161,088	\$160,272	\$158,843
412002	Landfill Monitoring	\$610,138	\$610,138	\$0	\$0
412004	Recycling Outreach	\$465,662	\$0	\$0	\$465,662
412007	Residential Collection Costs	\$28,143,781	\$12,145,778	\$8,659,519	\$7,338,484
412010	Litter Control	\$1,075,221	\$1,075,221	\$0	\$0
412011	Operation Clean Up/Bulky by Appt	\$5,428,196	\$5,428,196	\$0	\$0
412501	Facilities (Container Purchases)	\$838,354	\$281,233	\$279,808	\$277,313
	Subtotal	\$37,041,554	\$19,701,653	\$9,099,600	\$8,240,301
	Non-Rate Revenue	(\$484,304)	(\$257,591)	(\$118,974)	(\$107,739)
	DPU O&M Facility	\$1,665,781	\$1,665,781	\$0	\$0
	Wastewater Loan Debt Service	\$838,871	\$838,871	\$0	\$0
	Vehicle Replacement	\$3,454,308	\$1,325,490	\$1,084,492	\$1,044,326
	Landfill Capital Reserve	\$730,566	\$730,566	\$0	\$0
	Total FY 2025 Revenue Requirement	\$43,246,777	\$24,004,770	\$10,065,119	\$9,176,888

Table 3. FY 2025 Revenue Requirement in Total and by Material Type

- 2. Cost categories by Material Type were then allocated between the following four Cost Allocation categories to determine costs that are the same for all Service Levels and costs that vary based on the service demands of each Service Level:
 - Fixed costs those costs that remain constant regardless of the container size or number
 of containers a customer has (i.e., these costs are borne equally by all residents).
 Examples include costs for: driver training, cleaning supplies, freight charges, computer
 software, maintenance and capital costs for the City's closed landfill, DPU O&M Facility
 costs, etc.;
 - Variable costs those costs that fluctuate directly in relation to the service activity required for the Service Level. The level of service activity increases in relation to the amount of collected materials. Service Levels associated with larger quantities of collected materials require more vehicle trips, which increase route-related costs, like payroll and payroll related charges, workers compensation, fleet service charges, vehicle costs, and collection fuel costs. Therefore, variable costs fluctuate directly in relation to the amount of collected materials that each Service Level is entitled to dispose of;
 - Disposal or Processing costs the specific cost of disposing or processing collected materials, which vary based on Material Type and Service Level;
 - Container costs the cost of specific containers utilized for each Service Level; and

This procedure provided costs for each Material Type subdivided into the above four categories. These costs are presented in **Tables 4 through 6**.

Table 4. FY 2025 Solid Waste Revenue Requirement by Cost Allocation Category

Section	Description	Solid Waste	Fixed	Variable	Disposal	Containers
412001	Container Maintenance	\$161,088	\$0	\$0	\$0	\$161,088
412002	Landfill Monitoring	\$610,138	\$610,138	\$0	\$0	\$0
412004	Recycling Outreach	\$0	\$0	\$0	\$0	\$0
412007	Residential Collection Costs	\$12,145,778	\$3,644,878	\$4,464,704	\$4,036,196	\$0
412010	Litter Control	\$1,075,221	\$1,075,221	\$0	\$0	\$0
412011	Operation Clean Up/Bulky by Appt	\$5,428,196	\$5,428,196	\$0	\$0	\$0
412501	Facilities (Container Purchases)	\$281,233	\$0	\$0	\$0	\$281,233
	Subtotal	\$19,701,653	\$10,758,432	\$4,464,704	\$4,036,196	\$442,321
	Non-Rate Revenue	(\$257,591)	(\$257,591)	\$0	\$0	\$0
	DPU O&M Facility	\$1,665,781	\$1,665,781	\$0	\$0	\$0
	Wastewater Loan Debt Service	\$838,871	\$458,080	\$190,101	\$171,856	\$18,833
	Vehicle Replacement	\$1,325,490	\$0	\$1,325,490	\$0	\$0
	Landfill Capital Reserve	\$730,566	\$730,566	\$0	\$0	\$0
	Total FY 2025 Revenue Requirement	\$24,004,770	\$13,355,269	\$5,980,296	\$4,208,052	\$461,155

Table 5. FY 2025 Green Waste/Organics Revenue Requirement by Cost Allocation Category

Section	Description	Organic	Fixed	Variable	Processing	Containers
412001	Container Maintenance	\$160,272	\$0	\$0	\$0	\$160,272
412002	Landfill Monitoring	\$0	\$0	\$0	\$0	\$0
412004	Recycling Outreach	\$0	\$0	\$0	\$0	\$0
412007	Residential Collection Costs	\$8,659,519	\$2,982,173	\$3,652,940	\$2,024,407	\$0
412010	Litter Control	\$0	\$0	\$0	\$0	\$0
412011	Operation Clean Up/Bulky by Appt	\$0	\$0	\$0	\$0	\$0
412501	Facilities (Container Purchases)	\$279,808	\$0	\$0	\$0	\$279,808
	Subtotal	\$9,099,600	\$2,982,173	\$3,652,940	\$2,024,407	\$440,081
	Non-Rate Revenue	(\$118,974)	(\$118,974)	\$0	\$0	\$0
	DPU O&M Facility	\$0	\$0	\$0	\$0	\$0
	Wastewater Loan Debt Service	\$0	\$0	\$0	\$0	\$0
	Vehicle Replacement	\$1,084,492	\$0	\$1,084,492	\$0	\$0
	Landfill Capital Reserve	\$0	\$0	\$0	\$0	\$0
	Total FY 2025 Revenue Requirement	\$10,065,119	\$2,863,200	\$4,737,432	\$2,024,407	\$440,081

Table 6. FY 2025 Recycling Revenue Requirement by Cost Allocation Category

Section	Description	Recycling	Fixed	Variable	Processing	Containers
412001	Container Maintenance	\$158,843	\$0	\$0	\$0	\$158,843
412002	Landfill Monitoring	\$0	\$0	\$0	\$0	\$0
412004	Recycling Outreach	\$465,662	\$465,662	\$0	\$0	\$0
412007	Residential Collection Costs	\$7,338,484	\$2,871,722	\$3,517,645	\$949,116	\$0
412010	Litter Control	\$0	\$0	\$0	\$0	\$0
412011	Operation Clean Up/Bulky by Appt	\$0	\$0	\$0	\$0	\$0
412501	Facilities (Container Purchases)	\$277,313	\$0	\$0	\$0	\$277,313
	Subtotal	\$8,240,301	\$3,337,384	\$3,517,645	\$949,116	\$436,156
	Non-Rate Revenue	(\$107,739)	(\$107,739)	\$0	\$0	\$0
	DPU O&M Facility	\$0	\$0	\$0	\$0	\$0
	Wastewater Loan Debt Service	\$0	\$0	\$0	\$0	\$0
	Vehicle Replacement	\$1,044,326	\$0	\$1,044,326	\$0	\$0
	Landfill Capital Reserve	\$0	\$0	\$0	\$0	\$0
	Total FY 2025 Revenue Requirement	\$9,176,888	\$3,229,645	\$4,561,971	\$949,116	\$436,156

- 3. Material Type costs in each of the Cost Allocation Categories were then allocated among each of the Service Levels provided by that Material Type based on customers, containers, or capacity in the following manner:
 - Fixed costs for each Material Type were allocated to the base 64-and 96-gallon Service Levels (solid waste) or base 96-gallon service (green waste/organics and recycling) based on the number of customers in each Service Level by Material Type in relation to the number of customers in all Service Levels for that Material Type;
 - Variable costs for each Material type were allocated to the base 64-and 96-gallon Service Levels (solid waste) or base 96-gallon service (green waste and recycling) and all additional capacity (second cart) Service Levels based on the capacity of the containers in each Service Level by Material Type in relation to the total capacity of the containers in all Service Levels for that Material Type;
 - Disposal and processing costs for each Material Type were allocated to the base 64-and 96-gallon Service Levels (solid waste) or base 96-gallon Service Levels (green waste/organics/organics and recycling) and all additional capacity (second cart) Service Levels based on the capacity of the containers in each Service Level by Material Type in relation to the total capacity of the containers in all Service Levels for that Material Type;
 - Container costs for each Material Type were allocated to the base 64- and 96-gallon Service Levels (solid waste) or base 96 gallon Service Levels (green waste/organics and recycling) and all additional capacity (second cart) Service Levels based on the total number of containers for each Service Level by Material Type in relation to the total number of containers in all Service Levels for that Material Type adjusted for the price differential between 64-gallon containers and 96-gallon containers as appropriate; and.

These allocated costs were then divided by twelve to provide a cost per month for each Service Level by Material Type.

4. Costs per month for each Service Level by each Material Type were then divided by the number of customers subscribing to that service to develop a monthly customer cost of service rate for each Service Level.

Tables 7-9 sets forth the allocation of revenue requirements among the solid waste, green waste/organics and recycling containers to determine the costs of service for each of the Service Levels by Material Type.

Table 7. FY 2025 Solid Waste Cost of Service Analysis

	Base Service Options		Base Service Options 2nd Cart Options		Takala
Capacity	64 Gallon	96 Gallon	64 Gallon	96 Gallon	Totals
Customers	42,706	77,018			119,724
Containers	42,706	77,018	367	1,728	121,819
Annual Capacity (gallons per year)	142,125,568	384,473,856	1,221,376	8,626,176	536,446,976
Fixed Cost Percentage (% of Customers)	35.67%	64.33%			100.00%
Disposal & Variable Cost Percentage (% of Capacity)	26.49%	71.67%	0.23%	1.61%	100.00%
Container Cost Percentage	26.33%	71.83%	0.23%	1.61%	100.00%
Variable Route Costs/Month/Cust	\$132,034	\$357,175	\$1,135	\$8,014	\$498,358
Fixed Costs/Month	\$396,990	\$715,950	\$0	\$0	\$1,112,939
SW Disp Cost/Month	\$92,899	\$251,308	\$798	\$5,638	\$350,644
Container Maint Costs/Month	\$10,119	\$27,604	\$87	\$619	\$38,430
Variable Route Costs/Month/Cust	\$3.09	\$4.64	\$3.09	\$4.64	
Fixed Costs/Container/Month/Cust	\$9.30	\$9.30	\$0.00	\$0.00	
SW Disp Cost/Month/Cust	\$2.18	\$3.26	\$2.18	\$3.26	_
Container Maint Costs/Month/Cust	\$0.24	\$0.36	\$0.24	\$0.36	
Estimated Solid Waste Cost of Service Rates	\$14.80	\$17.55	\$5.50	\$8.26	

Table 8. FY 2025 Green Waste/Organics Cost of Service Analysis

Capacity	Base Service 96 Gallon	2nd Cart 96 Gallon	Totals
Customers	119,724		119,724
Containers	119,724	1,477	121,201
Annual Capacity (gallons per year)	597,662,208	7,373,184	605,035,392
Fixed Cost Percentage (% of Customers)	100.00%		100%
Disposal & Variable Cost Percentage (% of Capacity)	98.78%	1.22%	100%
Container Cost Percentage (% of Containers)	98.78%	1.22%	100%
Variable Route Costs/Month	\$389,974.96	\$4,811.01	\$394,785.97
Fixed Costs/Mon	\$238,599.96	\$0.00	\$238,599.96
Organics Processing Cost/Month	\$166,631.89	\$2,055.69	\$168,687.58
Container Maint Costs/Month	\$36,226.49	\$446.91	\$36,673.40
Variable Route Costs/Month/Cust	\$3.26	\$3.26	
Fixed Costs/Container/Month/Cust	\$1.99	\$0.00	
Organics Processing Cost/Month/Cust	\$1.39	\$1.39	
Container Maint Costs/Month/Cust	\$0.30	\$0.30	
Estimated Organic Cost of Service Rates	\$6.94	\$4.95	

Table 9. FY 2025 Recycling Cost of Service Analysis

	Capacity	Base Service 96 Gallon	2nd Cart 96 Gallon	Totals
Customers		119,724		119,724
Containers		119,724	396	120,120
Annual Capacity		597,662,208	1,976,832	599,639,040
Fixed Cost Percentage		100.00%		100%
Disposal & Variable Cost Percentage		99.67%	0.33%	100%
Container Cost Percentage		99.67%	0.33%	100%
Variable Route Costs/Month		\$378,910.98	\$1,253.29	\$380,164.27
Fixed Costs/Mon		\$269,137.11	\$0.00	\$269,137.11
Recycling Processing Cost/Month		\$78,771.60	\$0.00	\$78,771.60
Container Maint Costs/Month		\$36,226.49	\$119.82	\$36,346.31
Variable Route Costs/Month/Cust		\$3.16	\$3.16	
Fixed Costs/Container/Month/Cust		\$2.25	\$0.00	
Recycling Processing Cost/Month/Cust		\$0.66	\$0.00	
Container Maint Costs/Month/Cust		\$0.30	\$0.30	
Estimated Recycling Cost of Service Rates		\$6.37	\$3.47	

SECTION IV: RECOMMENDATIONS

IV.A. Proposed Rate Adjustments

As discussed above, the current Residential collection service rates are insufficient, on their own, to provide the revenue needed to fund existing and projected O&M and Capital expenses and maintain sufficient reserves. The proposed rate adjustments, along with the intradepartmental loan from the Wastewater Divisions, will fund the projected O&M and Capital expenses for the five-year planning period (FY 2025-FY 2029) and will achieve the required Residential operating reserve balance by the end of the five-year planning period.

Table 10 summarizes the current and proposed rates to fund the annual revenue requirement summarized in **Figure 1**. As shown in **Table 10**, the first rate adjustment will be effective each July 1 from 2024 through 2028.

Based on the results of the cost-of-service analysis, as discussed in Section III, it was determined that the individual Residential service rates for FY 2025 will need to be realigned to maintain proportionality among Service Levels. As such, the July 1, 2024, proposed rates re-align each level of service (i.e., container size) with the actual cost of service. Once realigned, the rates increase at the same percentage each year thereafter. **Tables 10** presents the results of that realignment of the FY 2025 rates for the basic Residential Service Levels; one 64-gallon container, (solid waste), and two 96-gallon containers, (green waste/organic materials and recycling) or three 96-gallon containers, (solid waste, green waste/organic materials and recycling). The FY 2026 – FY 2029 rate adjustments will be applied equally to all base Service Levels, on a percentage increase basis.

Table 10. Proposed Monthly Rates

	Current	Proposed Rates (\$/month)				
Container Size	Rate	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
rate adjustment e	ffective date:	7/1/2024	7/1/2025	7/1/2026	7/1/2027	7/1/2028
Solid Waste Container Size						
96-gallon Container	\$25.37	\$30.87	\$35.50	\$38.70	\$41.99	\$45.24
\$ Change		\$5.50	\$4.63	\$3.20	\$3.29	\$3.25
64-gallon Container	\$19.20	\$28.12	\$32.34	\$35.25	\$38.25	\$41.21
\$ Change		\$8.92	\$4.22	\$2.91	\$3.00	\$2.96
Additional Containers						
96-gallon Solid Waste	\$10.25	\$8.26	\$9.50	\$10.36	\$11.24	\$12.11
\$ Change		(\$1.99)	\$1.24	\$0.86	\$0.88	\$0.87
64-gallon Solid Waste	\$7.43	\$5.50	\$6.33	\$6.90	\$7.49	\$8.07
\$ Change		(\$1.93)	\$0.83	\$0.57	\$0.59	\$0.58
96-gallon Green Waste/Organ	\$3.87	\$4.95	\$5.69	\$6.20	\$6.73	\$7.25
\$ Change		\$1.08	\$0.74	\$0.51	\$0.53	\$0.52
96-gallon Recycling	\$3.74	\$3.47	\$3.99	\$4.35	\$4.72	\$5.09
\$ Change		(\$0.27)	\$0.52	\$0.36	\$0.37	\$0.37

IV.B. **Residential Operating Reserve**

As part of this engagement, HF&H also reviewed the ability of the proposed rates to fund the Division's Residential operating reserve at a level sufficient to provide fund operations for a period of 45 days in accordance with the Department of Public Utilities Financial Management Plan and Guiding Principles. The purpose of the Residential operating reserve is to ensure the Division's ability to effectively maintain operations when responding to unforeseen events or emergencies.

As shown in Figure 2 the projected rates will result in reaching the target reserve balance (solid blue line) by FY 2029 (solid green line). Without a rate increase, the operating reserve balance will be depleted before the end of FY 2024 (dotted green line).

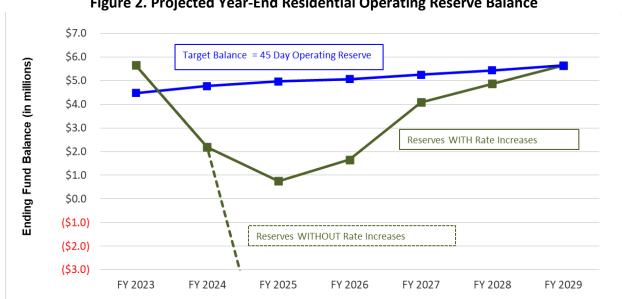


Figure 2. Projected Year-End Residential Operating Reserve Balance

IV.C. **Affordability Credit Program**

To comply with Proposition 218 requirements that solid waste rates must reflect the cost of service and discounts cannot be funded from the Solid Waste Enterprise, we recommend replacing the current senior low-income discounted rate with an "Affordability Credit Program" to be presented separately to City Council for consideration and approval.

By expanding the current Water Affordability Credit Program to include a solid waste component, the proposed "Affordability Credit Program" would provide credits on utility bills for those customers who meet the low-income criteria and would be funded through delinquency fees, not Solid Waste Enterprise revenue.

IV.D. Limitations

The Rate Model and accompanying analyses contain projections of revenues and expenditures based on various assumptions and estimates provided by the Division. While we reviewed those projections for reasonableness, actual results of operations will usually differ from projections because events and circumstances do not always occur as expected. Those differences may be significant and materially affect the analyses and findings presented in this report.