
Crescenta Valley Water District

2025 Water Budget and Wastewater Rate Study
Final Report – April 2025

Prepared by: Water Resources Economics, LLC



**Water Resources
Economics**

PROMOTING THE VALUE AND PRICE OF
WATER SERVICE

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April 25, 2025

James Lee
General Manager
Crescenta Valley Water District
2700 Foothill Boulevard
La Crescenta-Montrose, CA 91214

Subject: Crescenta Valley Water District Water and Wastewater Rate Study Report

Dear Mr. Lee,

Water Resources Economics, LLC (WRE) is pleased to submit this 2025 Water and Wastewater Rate Study Report to the Crescenta Valley Water District (District). This report documents the results and recommendations of the District's water and wastewater rate study. The goal of the study was to develop an updated three-year schedule of water and wastewater rates to comply with cost-of-service principles.

This study utilized industry-standard rate-setting methodology in accordance with guidelines developed by the American Water Works Association (AWWA) and incorporates guidance provided by the District's Board of Directors and Finance Committee. Our project team has a proven track record of developing fair and equitable water and wastewater rates for numerous public water agencies in California over the past 25 years. We are confident in our ability to develop sound water and wastewater rates that satisfy the requirements of Proposition 218.

It has been a pleasure assisting the District, and we appreciate the support provided by yourself, Mr. Montes, Mr. Sutphin, and other District staff during this study.

Sincerely,

Sanjay Gaur
Founder / President

Nancy Phan
Principal Consultant

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TABLE OF CONTENTS

1. Executive Summary	4
1.1 System Overview	4
1.2 Rate Study Overview	4
1.3 Legal Requirements	5
1.4 Rate-Setting Methodology	5
1.5 Additional Information and Disclaimers	6
1.6 Current Rates	6
1.7 Cost-of-Service Analysis	9
1.8 Proposed Water Rates	9
1.9 Proposed Wastewater Rates	12
2. Water Budget Analysis	15
2.1 Water Budget Methodology	15
2.2 Indoor Water Budget	15
2.3 Outdoor Water Budget	16
2.4 Residential Water Budget Analysis	16
3. Water Cost-of-Service Analysis	17
3.1 Cost-of-Service Methodology	17
3.2 Revenue Requirement.....	17
3.3 Cost Functionalization	18
3.4 Cost Causation Components	20
3.5 System Capacity Allocations	25
3.6 Allocation to Cost Components.....	29
3.7 Unit Cost Calculation.....	31
3.8 Cost-of-Service by Customer Class	34
4. Water Rates.....	35
4.1 Rate Design Methodology.....	35
4.2 Proposed Changes to Rate Structure	35
4.3 Proposed Monthly Meter Charges	36
4.4 Proposed Monthly Private Fire Protection Charges	37
4.5 Proposed Annual Capital Charges	38
4.6 Proposed Usage Rates	40
4.7 Proposed Water Rate Schedule	45
5. Wastewater Cost-of-Service And Rates.....	48
5.1 Cost-of-Service Methodology	48
5.2 Revenue Requirement.....	48
5.3 Estimated Wastewater Flow	48
5.4 Cost-of-Service by Customer Class	50
5.5 Proposed Changes To Rate Structure	50

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

5.6	Rate Design Methodology.....	51
5.7	Wastewater Charges.....	51
5.8	Proposed Wastewater Rate Schedule	52
6.	Appendices	54
6.1	Cost-of-Service Analysis Appendices.....	54

LIST OF TABLES

Table 1-1: Current Water Bi-Monthly Meter Charges (Inside District)	6
Table 1-2: Current Water Bi-Monthly Private Fire Protection Charges	7
Table 1-3: Current Water Usage Rates	7
Table 1-4: Current Annual Capital Charges (Potable Water)	7
Table 1-5: Current Annual Capital Charges (Private Fire)	8
Table 1-6: Current Wastewater Bi-Monthly Fixed Charges	8
Table 1-7: Current Wastewater Quantity Charges	8
Table 1-8: Proposed Water Revenue Adjustments	10
Table 1-9: Proposed Water Monthly Meter Charges	11
Table 1-10: Proposed Water Monthly Private Fire Protection Charges	11
Table 1-11: Proposed Water Usage Rates	11
Table 1-12: Proposed Annual Capital Charges (Potable Water).....	11
Table 1-13: Proposed Annual Capital Charges (Private Fire)	12
Table 1-14: Proposed Water Single Family Residential Customer Impacts	12
Table 1-15: Proposed Wastewater Revenue Adjustments.....	13
Table 1-16: Proposed Wastewater Rates.....	13
Table 1-17: Proposed Wastewater Single Family and Commercial Customer Impacts	14
Table 2-1: Residential Water Budget Analysis Results	16
Table 3-1: FY 2025 Water Revenue Requirement.....	18
Table 3-2: Water Operating Costs by System Functions	19
Table 3-3: Water Capital Assets by System Functions	20
Table 3-4: Water System-Wide Capacity Allocation	21
Table 3-5: Water System Function Allocation to Cost Components	22
Table 3-6: Water Operating Allocation by Cost Component.....	23
Table 3-7: Water Capital Allocation by Cost Component.....	24
Table 3-8: Revenue Offset Allocation by Cost Component	24
Table 3-9: Equivalent Meter Units	25
Table 3-10: Equivalent Fire Lines	26
Table 3-11: Max Month Capacity Factor by Customer Class and Tier.....	27
Table 3-12: Customer Demand Capacity	27
Table 3-13: Capacity Allocation by Fire and Customer Demand.....	28
Table 3-14: Cost-of-Service Allocation by Cost Component (Preliminary, General)	29
Table 3-15: Cost-of-Service Allocation by Cost Component (Fire Protection, Capacity).....	30
Table 3-16: Cost-of-Service Allocation by Cost Component (Final)	31
Table 3-17: Units of Service Definitions.....	32

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 3-18: Unit Cost by Cost Component	32
Table 3-19: Pipeline Replacement Unit Cost	33
Table 3-20: Cost-of-Service Allocation by Cost Component and Customer Class	34
Table 4-1: Revenue Neutral Monthly Meter Charges.....	36
Table 4-2: Proposed Monthly Meter Charges after Adjustment	37
Table 4-3: Proposed Monthly Meter Charges after Adjustment (Outside District)	37
Table 4-4: Revenue Neutral Monthly Private Fire Protection Charges	38
Table 4-5: Proposed Monthly Private Fire Protection Charges after Adjustment	38
Table 4-6: Revenue Neutral Annual Capital Charges (Potable Water)	39
Table 4-7: Revenue Neutral Annual Capital Charges (Private Fire).....	39
Table 4-8: Proposed Annual Capital Charges After Adjustment (Potable Water).....	39
Table 4-9: Proposed Annual Capital Charges After Adjustment (Private Fire)	40
Table 4-10: Water Unit Cost by Source of Supply	41
Table 4-11: Water Supply Unit Cost by Customer Class	41
Table 4-12: Water Capacity Unit Cost by Customer Class	42
Table 4-13: Water Conservation Unit Cost by Customer Class	42
Table 4-14: Water Revenue Offset by Customer Class	43
Table 4-15: Water Reliability Unit Cost.....	43
Table 4-16: Water Reliability Unit Cost by Customer Class.....	44
Table 4-17: Revenue Neutral Water Usage Rates	44
Table 4-18: Proposed Water Usage Rates After Adjustment.....	45
Table 4-19: Proposed Water Revenue Adjustments	45
Table 4-20: Proposed Water Monthly Meter Charges.....	46
Table 4-21: Proposed Water Monthly Private Fire Protection Charges	46
Table 4-22: Proposed Water Usage Rates	46
Table 4-23: Proposed Annual Capital Charges (Potable Water).....	46
Table 4-24: Proposed Annual Capital Charges (Private Fire)	47
Table 4-25: Proposed Water Single Family Residential Customer Impacts	47
Table 5-1: FY 2025 Revenue Requirement	48
Table 5-2: Estimated School Wastewater Flow by School Type	49
Table 5-3: Estimated Wastewater Flow by Customer Class	50
Table 5-4: Cost-of-Service by Customer Class	50
Table 5-5: Revenue Neutral Wastewater Charges	51
Table 5-6: Proposed Wastewater Revenue Adjustments	52
Table 5-7: Proposed Wastewater Rates	52
Table 5-8: Proposed Wastewater Single Family and Commercial Customer Impacts	53
Table 6-2: Operating Expenses (Detail)	54
Table 6-3: Capital Assets (Detail).....	58
Table 6-4: Capital Asset Categories.....	69

1. EXECUTIVE SUMMARY

1.1 SYSTEM OVERVIEW

The Crescenta Valley Water District (District or CVWD) provides potable water service and wastewater collection service to the communities of La Crescenta, Montrose, Verdugo City, as well as a small portion of the City of Glendale and the City of La Canada-Flintridge. The District's service area is approximately four-square miles over substantial elevations ranging from 1,200 feet to almost 3,000 feet above sea level.

The District provides water service to approximately 8,000 accounts, including Single Family, Multi Family, Commercial, Institutional, and Irrigation customer classes, servicing a population of approximately 33,000. The water system consists of over 90 miles of transmission and distribution pipelines and 12 local groundwater wells. The system also includes multiple pressure zones, booster pumps, and water storage reservoirs. The District's water supply sources include local groundwater from the Verdugo Basin, representing 40% to 60% of water supply, and imported water from the Colorado River Aqueduct (CRA) and State Water Project (SWP), covering the remainder of water supply.

The District provides wastewater collection services to approximately 6,300 accounts, including Single Family, Multi-Family, Commercial, and Institutional customer classes. The wastewater collection system transports wastewater for treatment at the City of Los Angeles (Los Angeles Bureau of Sanitation-Glendale Plant) facilities. The collection system consists of approximately 65 miles of mainline wastewater and 27 miles of wastewater laterals.

1.2 RATE STUDY OVERVIEW

Public retail water agencies in California typically conduct a cost-of-service study every five years to ensure that customers are appropriately charged for water service and to reestablish the cost-of-service nexus that is required by Proposition 218. The District's existing rate structure was developed in 2021 in a cost-of-service study.

The District engaged Water Resources Economics, LLC (WRE) in 2024 to conduct a comprehensive water and wastewater rate study, with the following objectives:

- Develop a water budget analysis for the District's Single Family Residential customers to evaluate water use parameters unique to each parcel
- Conduct a water and wastewater cost-of-service analysis based on the most recent data and customer use characteristics, incorporating the results of the water budget analysis
- Develop a three-year water and wastewater rate schedule for Fiscal Year (FY) 2026¹ through FY 2028

¹ FY 2026 is the year starting July 1, 2025 and ending June 30, 2026.

1.3 LEGAL REQUIREMENTS

Legal considerations relating to retail water 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 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 nexus between the costs incurred by the agency to provide water service and the rates charged to customers. The primary means by which retail water agencies address this requirement is by conducting a “cost-of-service analysis.”

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 protest the proposed rate changes. If a majority of customers submit a protest, the proposed rate changes cannot be adopted.

1.4 RATE-SETTING METHODOLOGY

This study was conducted to establish cost-based rates in compliance with Proposition 218. The study uses industry-standard methodology outlined by the American Water Works Association (AWWA) in its *Manual of Water Supply Practices M1: Principles of Water Rates, Fees and Charges, Seventh Edition* (M1 Manual), only to the extent that the M1 Manual is consistent with Proposition 218 requirements. The rate study process includes the following steps:

1. **Water Budget Analysis:** A water budget analysis is conducted for the District’s Single Family Residential customers to evaluate the use of water specific to each customer for both indoor and outdoor use.
2. **Cost-of-Service Analysis:** Costs are allocated to customers in proportion to their use of and burden on the water and wastewater system. The overall goal is to establish a nexus between the costs incurred by an agency and the rates charged to customers, as required by Proposition 218.
3. **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 water budget analysis and cost-of-service analysis.
4. **Rate Study Documentation:** A rate study report is developed to document the proposed rate development process. This provides transparency and enhances legal defensibility in light of Proposition 218 requirements. This document serves as the report for this rate study.

1.5 ADDITIONAL INFORMATION AND DISCLAIMERS

This report summarizes the data, analyses, processes, and results of the District's water budget and wastewater rate study. Some important information to keep in mind when reading the report includes the following:

- All study projections are based on the best available data as of March 2025.
- District staff provided the results of the financial plan and overall rate revenue requirements based on staff's financial plan model.
- All table values are rounded to the nearest digit shown unless stated otherwise. However, all calculations are based on precise values. Attempting to manually recreate the calculations described in this report from the values displayed in tables may therefore produce slightly different results.
- All current rates and charges in this report are shown on a bi-monthly basis. The District will be changing its billing frequency to monthly instead of bi-monthly. All proposed rates and charges in this report are shown on a monthly basis. The annual capital charges (both current and proposed) are shown on an annual basis.

1.6 CURRENT RATES

CURRENT WATER RATES

The District's current water rate structure includes fixed bi-monthly meter charges by meter size for Inside and Outside District accounts, fixed bi-monthly fire protection charges by fire line diameter (charged to private fire customers only), usage rates by water usage measured in units equal to one thousand gallons (kgal), and annual capital charges for potable water and private fire customers. Customers designated as Outside District are charged an additional \$0.40 administrative charge per billing period. Single Family Residential customers' usage rates have three tiers and Irrigation customers have two tiers; all other customers, including Multi-Family, Commercial, and Institutional customers, have a uniform usage rate.

Table 1-1, Table 1-2, and Table 1-3 show the current bi-monthly meter charges for Inside District accounts, bi-monthly private fire protection charges, and usage rates, respectively.

Table 1-1: Current Water Bi-Monthly Meter Charges (Inside District)

Line	Bi-Monthly Meter Charges (Inside District)	As of 7/1/2024
1	3/4"	\$34.06
2	1"	\$50.38
3	1 1/2"	\$91.17
4	2"	\$140.13
5	3"	\$295.16
6	4"	\$523.62

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 1-2: Current Water Bi-Monthly Private Fire Protection Charges

Line	Bi-Monthly Private Fire Protection Charges	As of 7/1/2024
1	1"	\$10.59
2	2"	\$15.85
3	3"	\$27.78
4	4"	\$48.37
5	6"	\$122.25
6	8"	\$249.70
7	10"	\$441.39

Table 1-3: Current Water Usage Rates

Line	Usage Rates (\$/kgal)	As of 7/1/2024
1	Single Family	
2	Tier 1 (1-10 units per billing period)	\$5.96
3	Tier 2 (11 to 26 units per billing period)	\$11.09
4	Tier 3 (27+ units per billing period)	\$15.63
5	Multi-Family/Commercial /Institutional	\$9.45
6	Irrigation	
7	Tier 1 (1-80 units per billing period)	\$6.30
8	Tier 2 (81+ units per billing period)	\$11.88

In addition to the rates above, the District's Board of Directors elected in 2023 to place an annual capital charge on the County property tax roll effective in FY 2025. This charge will be collected through County property taxes and will fund capital projects related to the District's pipeline replacement program.

Table 1-4 and **Table 1-5** show the current annual capital charges by meter size for potable water and private fire service customers, respectively.

Table 1-4: Current Annual Capital Charges (Potable Water)

Line	Annual Capital Charges (Potable Water)	As of 7/1/2024
1	3/4"	\$194.06
2	1"	\$323.44
3	1 1/2"	\$646.87
4	2"	\$1,035.00
5	3"	\$2,264.71
6	4"	\$4,075.31

Table 1-5: Current Annual Capital Charges (Private Fire)

Line	Annual Capital Charges (Private Fire)	As of 7/1/2024
1	1"	\$3.32
2	2"	\$20.58
3	3"	\$59.78
4	4"	\$127.41
5	6"	\$370.10
6	8"	\$788.70
7	10"	\$1,418.34

CURRENT WASTEWATER RATES

The District's current wastewater rate structure includes fixed monthly charges and quantity charges by customer class. For Single Family Residential customers, fixed monthly charges are charged per dwelling unit (DU) and quantity charges are based on the prior year's average winter water usage, consisting of prior year two-month billing ending in February or March, up to a maximum of 20 units per billing period. For Multi-Family customers, fixed bi-monthly charges are charged per Equivalent Dwelling Unit (EDU) and quantity charges are also based on the prior year's average winter water usage, up to a maximum of 15 units per billing period. Commercial and Institutional customers are charged quantity charges based on the prior year's average water use up to a maximum of 15 units per billing period and a fixed bi-monthly charge. For Schools, quantity charges are based on the average daily attendance (ADA) of the students at each school and vary based school type.

Table 1-6 and **Table 1-7** show the current bi-monthly fixed charges and quantity charges by customer class, respectively.

Table 1-6: Current Wastewater Bi-Monthly Fixed Charges

Line	Bi-Monthly Fixed Charges	Unit	As of 7/1/2024
1	Single Family	DU	\$58.59
2	Multi-Family	EDU	\$34.51
3	Commercial / Institutional	Account	\$34.51

Table 1-7: Current Wastewater Quantity Charges

Line	Quantity Charges (\$/kgal)	Unit	As of 7/1/2024
1	Single Family	kgal	\$2.50
2	Multi-Family	kgal	\$2.77
3	Commercial	kgal	\$6.40
4	Elementary School	100 ADA	\$106.40
5	Middle School	100 ADA	\$212.79
6	High School	100 ADA	\$319.16

1.7 COST-OF-SERVICE ANALYSIS

A cost-of-service analysis is a technical process used to determine the cost of providing water and wastewater service to the District's customers based on each customer's use of and burden on the water and wastewater system. The cost-of-service analysis is the basis of the nexus between the costs incurred by the utility to provide water and wastewater service and the rates charged to customers, which is a requirement of Proposition 218.

COST-OF-SERVICE METHODOLOGY

The cost-of-service methodology is based on industry standards set forth by AWWA in its M1 Manual; this rate study utilizes the base-extra capacity method. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated from. Note that although the study period spans multiple years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is FY 2025. The key steps in conducting a cost-of-service analysis are outlined below:

- **Revenue requirement determination:** The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization:** Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, groundwater wells, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components:** Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the District's incursion of costs.
- **Unit cost development:** The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

1.8 PROPOSED WATER RATES

PROPOSED RATE STRUCTURE CHANGES

WRE worked closely with the District's Board of Directors and staff to determine the most appropriate water rate structure that meets the District's needs. A water budget analysis was developed to define indoor and outdoor water use for Single Family Residential customers in the District's service area. The District Board provided direction to develop proposed water rates based on the results of the water budget analysis.

The following changes were made to the rate structure as part of the study:

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

- **Single Family Residential customers:** Proposed usage rates for Single Family customers are based on the water budget analysis. Tier 1 is defined as the “indoor water budget,” which assumes 4 people per household and 47 gallons per capita per day (gpcd) of water use. Tier 1 is the same for all Single Family customers and is 6 kgal per month. Tier 2 is defined as the “outdoor water budget,” which takes lot size, evapotranspiration data, and an evapotranspiration adjustment factor into consideration. Tier 2 will vary between Single Family customers based on lot size. The results of the water budget analysis are discussed in a later section of this report.
- **Irrigation customers:** Proposed usage rates for Irrigation customers are recommended to change to a uniform rate, compared to the current two-tiered usage rate. Irrigation water use is a small portion of the District’s total water use (approximately 6% of use) and the usage characteristics between Tiers 1 and Tier 2 are generally similar. This change is recommended to simplify the water rate structure.
- **Water Reliability rate component:** Proposed usage rates for all customers will generate approximately \$500,000 of rate revenue to provide funding for new sources of supply (such as recycled water). These revenues will fund the District’s new Water Supply Reliability Reserve; the funding amount was based on direction from the Board.

PROPOSED REVENUE ADJUSTMENTS

Table 1-8 shows the proposed revenue adjustments based on the District’s financial plan model, which was provided by District staff. The proposed revenue adjustments allow the District to meet the financial obligations of the water system throughout the study period.

Table 1-8: Proposed Water Revenue Adjustments

Line	Fiscal Year	Revenue Adjustments
1	FY 2026	8.0%
2	FY 2027	8.0%
3	FY 2028	8.0%

PROPOSED WATER RATE SCHEDULE

The proposed water rate schedules in this section are based on the proposed rate structure and methodology changes, the water budget analysis, the updated cost-of-service analysis, and the proposed revenue adjustments in the three-year period. The rate schedule shows the proposed water rates to be implemented in July 2025 through July 2027.

Table 1-9, Table 1-10, Table 1-11, Table 1-12, and Table 1-13 show the proposed monthly meter charges, monthly private fire protection charges, usage rates, annual capital charges for potable water customers, and annual capital charges for private fire customers, respectively.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 1-9: Proposed Water Monthly Meter Charges

Line	Monthly Meter Charges	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	3/4"	\$44.53	\$48.10	\$51.95
2	1"	\$70.58	\$76.23	\$82.33
3	1 1/2"	\$135.70	\$146.56	\$158.29
4	2"	\$213.85	\$230.96	\$249.44
5	3"	\$461.32	\$498.23	\$538.09
6	4"	\$826.02	\$892.10	\$963.47

Table 1-10: Proposed Water Monthly Private Fire Protection Charges

Line	Monthly Private Fire Protection Charges	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	1"	\$6.31	\$6.81	\$7.36
2	2"	\$10.72	\$11.58	\$12.51
3	3"	\$20.74	\$22.40	\$24.20
4	4"	\$38.03	\$41.08	\$44.37
5	6"	\$100.08	\$108.09	\$116.74
6	8"	\$207.11	\$223.68	\$241.58
7	10"	\$368.10	\$397.55	\$429.36

Table 1-11: Proposed Water Usage Rates

Line	Usage Rates (\$/kgal)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	Single Family			
2	Tier 1 (indoor water budget)	\$5.56	\$6.01	\$6.50
3	Tier 2 (outdoor water budget)	\$11.52	\$12.45	\$13.45
4	Tier 3 (above water budget)	\$18.26	\$19.73	\$21.31
5	Multi-Family/Commercial/Institutional	\$9.79	\$10.58	\$11.43
6	Irrigation	\$10.96	\$11.84	\$12.79

Table 1-12: Proposed Annual Capital Charges (Potable Water)

Line	Annual Capital Charges (Potable Water)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	3/4"	\$209.59	\$226.36	\$244.47
2	1"	\$349.32	\$377.27	\$407.46
3	1 1/2"	\$698.62	\$754.51	\$814.88
4	2"	\$1,117.78	\$1,207.21	\$1,303.79
5	3"	\$2,445.15	\$2,640.77	\$2,852.04
6	4"	\$4,401.25	\$4,753.35	\$5,133.62

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 1-13: Proposed Annual Capital Charges (Private Fire)

Line	Annual Capital Charges (Private Fire)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	1"	\$4.14	\$4.48	\$4.84
2	2"	\$25.59	\$27.64	\$29.86
3	3"	\$74.30	\$80.25	\$86.67
4	4"	\$158.32	\$170.99	\$184.67
5	6"	\$459.88	\$496.68	\$536.42
6	8"	\$980.01	\$1,058.42	\$1,143.10
7	10"	\$1,762.38	\$1,903.38	\$2,055.66

CUSTOMER IMPACTS

Table 1-14 shows the proposed impacts for a Residential customer without private fire with a 3/4" meter (the most common meter size within this class) at various levels of monthly usage. For the median Residential customer that uses 6 kgal of water every month, the monthly impact will be \$7.21 or 8%, which reflects the impact of the water budget analysis, the cost-of-service analysis, the changes in rate structure methodology, and the 8% revenue adjustment applied to FY 2026.

Table 1-14: Proposed Water Single Family Residential Customer Impacts

Line	Residential Customer Impacts	Monthly Use (kgal)	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
1	10th Percentile	2	\$62.15	\$73.12	\$10.96	18%
2	25th Percentile	4	\$74.07	\$84.24	\$10.16	14%
3	50th Percentile (Median)	6	\$91.12	\$98.34	\$7.21	8%
4	75th Percentile	10	\$135.48	\$147.79	\$12.30	9%
5	90th Percentile	15	\$200.01	\$239.09	\$39.07	20%

1.9 PROPOSED WASTEWATER RATES

PROPOSED RATE STRUCTURE CHANGES

WRE worked closely with the District's Board of Directors and staff to determine the most appropriate wastewater rate structure that meets the District's needs. The following changes were made to the wastewater rate structure:

- **Residential customers:** Proposed Residential wastewater charges include a monthly fixed charge based on equivalent dwelling units (EDU) and do not include a usage rate. WRE recommends this change to simplify the rate structure and to enhance revenue stability. The wastewater generation of an EDU is based on the indoor water budget for Single Family customers, which assumes 4 people per household. Single Family wastewater rates will also show a per person charge for customers that choose to specify how many people are in the household.
- **Commercial customers:** Proposed Commercial wastewater charges include a monthly fixed charge with an allowance of 6 kgal of water use and a usage rate for all units of

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

usage over 6 kgal. The water use allowance of 6 kgal is based on the estimated Residential water use (equal to indoor water use allotment determined as part of the water budget analysis). WRE recommends this change to simplify the rate structure.

PROPOSED REVENUE ADJUSTMENTS

Table 1-15 shows the proposed revenue adjustments based on the District's financial plan model, which was provided by District staff. The proposed revenue adjustments allow the District to meet the financial obligations of the wastewater system throughout the study period.

Table 1-15: Proposed Wastewater Revenue Adjustments

Line	Fiscal Year	Revenue Adjustments
1	FY 2026	15.0%
2	FY 2027	15.0%
3	FY 2028	15.0%

PROPOSED WASTEWATER RATE SCHEDULE

The proposed wastewater rate schedules in this section are based on the updated cost-of-service analysis, rate structure methodology changes, and proposed revenue adjustments in the three-year period. The rate schedule shows the proposed wastewater rates to be implemented in July 2025 through July 2027. **Table 1-16** shows the proposed wastewater rates for all customers.

Table 1-16: Proposed Wastewater Rates

Line	Wastewater Rates	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	Residential			
2	Single Family Monthly Fixed Charge	\$51.28	\$58.96	\$67.80
3	Single Family Per Person Charge	\$12.82	\$14.74	\$16.95
4	Multi-Family Monthly Fixed Charge	\$34.18	\$39.31	\$45.21
5	Commercial			
6	Commercial Monthly Fixed Charge	\$51.28	\$58.96	\$67.80
7	Commercial Quantity Charge (\$/kgal over 6 kgal)	\$8.55	\$9.84	\$11.32
8	Schools			
9	Elementary Schools (\$/100 ADA per month)	\$64.08	\$73.70	\$84.75
10	Middle Schools (\$/100 ADA per month)	\$128.16	\$147.39	\$169.50
11	High Schools (\$/100 ADA per month)	\$192.24	\$221.08	\$254.24

CUSTOMER IMPACTS

Table 1-17 shows the proposed impacts for Single Family and Commercial customers at various levels of monthly usage.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 1-17: Proposed Wastewater Single Family and Commercial Customer Impacts

Line	Customer Impacts	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
1	Single Family, 4 kgal	\$39.30	\$51.28	\$11.98	30%
2	Single Family, 6 kgal	\$44.30	\$51.28	\$6.98	16%
3	Single Family, 10 kgal (current cap)	\$54.30	\$51.28	(\$3.03)	-6%
4	Commercial, 7.5 kgal (current cap)	\$65.26	\$64.11	(\$1.15)	-2%
5	Commercial, 13 kgal	\$65.26	\$111.13	\$45.87	70%

2. WATER BUDGET ANALYSIS

2.1 WATER BUDGET METHODOLOGY

The purpose of a water budget analysis is to define indoor and outdoor (irrigation) use specific to each customer in utility's service area. Based on direction from the Board and District staff, a water budget was developed for the Single Family Residential customer class. The water budget for each Single Family customer is comprised of an indoor and an outdoor component; the combination of the two water budget components is called the "total water budget" for each customer.

A water budget is customized for each customer based on household size, indoor use standards set by the Department of Water Resources (DWR), evapotranspiration data, and irrigable lot size data. As such, the goal is to allocate the proportional cost of service based on the unique characteristics of each parcel.

The steps for conducting a water budget analysis include:

- Calculate the indoor water budget for all Single Family customers based on household size and indoor use standards as provided by the State of California
- Calculate the outdoor water budget for all Single Family customers based on evapotranspiration (weather) data and estimated irrigable lot size data
- Analyze Single Family customer billing data and determine amount of use within indoor budget, outdoor budget, and exceeding budget

2.2 INDOOR WATER BUDGET

The indoor water budget for Single Family customers is calculated based on the following factors:

- **Household size:** For this study, WRE received direction from the Board to use 4 people per household based on the average household size from the most recent census data for La Crescenta. The District will also allow customers to adjust their water budget based on actual household size. However, since the wastewater rate is also based on the indoor water budget, any adjustment to the indoor water budget will be reflected in both the water and wastewater rates for each customer. For example, a household with 5 people can increase their indoor water budget by adjusting their household size. In turn, their wastewater rate will also increase based on the adjusted household size.
- **Indoor use standards:** The per capita water usage standard used in the study is based on the amended version of Senate Bill 1157, as well as the DWR and State Water Resources Control Board (SWRCB) recommendation of 47 gpcd starting in 2025.
- **Billing days per cycle:** The District will bill customers based on a monthly cycle, so the number of billing days per cycle is approximately 30 days but will vary based on the number of days in each month.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

The calculation to determine the indoor water budget for Single Family customers is as follows:

$$\text{Average household size [4 people]} \times \text{indoor use [47 gcpd]} \times \text{Billing days [30 days]} / 1,000 \text{ gallons} = 6 \text{ kgal per month}$$

2.3 OUTDOOR WATER BUDGET

The outdoor water budget for Single Family customers is calculated based on the following factors:

- **Evapotranspiration data:** WRE utilized the CIMIS weather data for the Arleta station, which is closest to the District's service area, for the most recent year of data. Evapotranspiration is defined as the total quantity of water evaporated from plants and the quantity of water used by plants in inches.
- **Evapotranspiration adjustment factor (ETAF):** The ETAF represents the irrigation system efficiency and is typically 80% for non-rehabilitated service areas. The ETAF used in the study is 80%.
- **Irrigable lot size:** Based on the District's flyover data report, approximately 33% of lot size in square feet is irrigable area. This percentage is multiplied by the actual lot size of each Single Family Residential customer to determine the irrigable lot size. Based on direction from the Board, WRE used a maximum irrigable lot size of 4,353 square feet, which is based on the 90th percentile of lot sizes and irrigable area percentage.

The calculation to determine the outdoor water budget for Single Family Customers is as follows:

$$\text{Irrigable lot size} \times \text{Evapotranspiration Data per billing cycle} \times \text{ETAF [80\%]} \times \text{Billing days [30 days]}$$

2.4 RESIDENTIAL WATER BUDGET ANALYSIS

Table 2-1 shows the results of the Single Family Residential water budget analysis, which includes a comparison of water use in the current tiers and the proposed water budget tiers. The proposed Tier 1 represents the use within each customer's indoor water budget, Tier 2 represents the use within their outdoor water budget, and Tier 3 represents the use exceeding the total water budget.

Table 2-1: Residential Water Budget Analysis Results

Line	Single Family Residential Tiers	Current Tiers	Proposed Water Budget
1	Tier 1 (indoor water budget)	343,795	389,479
2	Tier 2 (outdoor water budget)	203,826	104,942
3	Tier 3 (above water budget)	62,877	116,077
4	Total	610,498	610,498

3. WATER COST-OF-SERVICE ANALYSIS

3.1 COST-OF-SERVICE METHODOLOGY

A cost-of-service analysis was conducted to allocate the proposed FY 2025 revenue requirement to customers in proportion to their use of and burden on the District's water system. The overall goal of the cost-of-service analysis is to develop "unit costs," which provide the basis from which proposed rates are directly calculated from. Note that although the study period spans multiple years, the cost-of-service analysis is limited to a single representative year referred to as the "test year." The test year in this study is FY 2025.

The cost-of-service analysis is "revenue neutral," meaning that the resulting cost-of-service based rates collect the same amount of revenue as the District expects to collect in FY 2025. The revenue neutral unit costs determine revenue neutral rates, which are then adjusted based on the proposed financial plan increases to arrive at the proposed water rates for three years. All values presented in this section pertain to FY 2025 and are revenue neutral unless stated otherwise.

The key steps in conducting a water cost-of-service analysis are outlined below:

- **Revenue requirement determination:** The total rate revenue requirement for the test year is determined based on the results of the proposed financial plan and divided into primary sub-components (operating, capital, etc.).
- **Cost functionalization:** Operating and capital costs are evaluated and assigned to "functional categories" in the water system (e.g., customer service, groundwater wells, distribution, etc.). This provides a proportional breakdown of system costs by functional category.
- **Revenue requirement allocation to cost causation components:** Functionalized costs are allocated to "cost causation components" (e.g., water supply, base delivery, max day delivery, etc.), which is used to attribute customers' use of the system to the District's incursion of costs.
- **Unit cost development:** The rate revenue requirement allocation for each individual cost causation component is divided by the appropriate units of service to establish unit costs for the test year. Unit costs provide the basis from which proposed rates are calculated.

3.2 REVENUE REQUIREMENT

REVENUE REQUIREMENT DETERMINATION

The total rate revenue requirement for the test year, FY 2025, is based on financial data provided by District staff from the financial plan model and is allocated between the Operating, Capital, and Pipeline components, as shown in **Table 3-1**.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

The Operating revenue requirement consists of operating expenses (Line 2) and adjustments for cash from reserves (Line 15). Since the District adopts rates at the start of its fiscal year on July 1, 2024, the FY 2025 rates are effective for the full fiscal year and no adjustment is needed. The Capital revenue requirement includes capital expenses such as rate funded capital projects and grant funded projects (Line 3) as well as debt service (Line 4). The Pipeline revenue requirement includes capital expenses related to the District's pipeline replacement program (Line 3). The revenue offsets (Line 7-11) include non-rate revenues that reduce the overall revenue requirement for each revenue requirement category. Some revenue offsets, including non-operating revenue, which include grant funds for grant funded capital projects (Line 9) and developer contributions (Line 10), are designated for capital expenditures, and therefore can only be used to reduce the overall revenue requirement for the capital revenue requirement category. Revenue requirements (Line 5) less revenue offsets (Line 11) and adjustments for cash reserves (Line 15) are equal to the total amount of rate revenue required to provide water service in FY 2025 (Line 17).

Table 3-1: FY 2025 Water Revenue Requirement

Line	FY 2025 Revenue Requirement	Operating	Capital	Pipeline	Total
1	Revenue Requirements				
2	Operating Expenses	\$13,374,198	\$0	\$0	\$13,374,198
3	Capital Expenses	\$0	\$2,106,499	\$3,944,351	\$6,050,850
4	Debt Service	\$0	\$1,839,818	\$0	\$1,839,818
5	Subtotal	\$13,374,198	\$3,946,317	\$3,944,351	\$21,264,866
6					
7	Revenue Offsets				
8	Rentals and Cell Tower Income	\$97,899	\$0	\$0	\$97,899
9	Non-Operating Revenue	\$0	\$525,000	\$0	\$525,000
10	Developer Contributions	\$0	\$220,000	\$0	\$220,000
11	Subtotal	\$97,899	\$745,000	\$0	\$842,899
12					
13	Adjustments				
14	Cash Balance	(\$5,113,356)	\$0	\$0	(\$5,113,356)
15	Subtotal	(\$5,113,356)	\$0	\$0	(\$5,113,356)
16					
17	Revenue Requirement	\$8,162,943	\$3,201,317	\$3,944,351	\$15,308,611
18	Revenue Requirement Less Offsets	\$8,260,842	\$3,946,317	\$3,944,351	\$16,151,510

3.3 COST FUNCTIONALIZATION

FUNCTIONAL CATEGORY DEFINITIONS

After determining the revenue requirement, the next step in the cost-of-service analysis is to allocate the District's costs into various functional categories. These categories represent the main functions of the District's water system and include:

- **Meters:** costs of meter maintenance and replacement
- **Customer:** costs related to customer service and billing

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

- **Fire:** costs related to providing fire protection services
- **Supply:** costs of acquiring water from local groundwater sources and importing water
- **Treatment:** costs related to the treatment of water to potable standards
- **Pumping:** costs relating to pumping water to higher elevations
- **Storage:** costs related to water storage facilities (such as reservoirs and tanks)
- **Distribution:** costs related to the distribution of water through the District's water system
- **Conservation:** costs related to the District's water conservation program, which include public outreach efforts and rebates for eligible devices
- **General:** costs that are not directly attributable to any other functional category
- **Revenue Offset:** miscellaneous revenues that are not generated by specific customer classes or for payment of services provided by the District; these revenues can be used to offset rates at the District's discretion under Proposition 218 requirements
- **Pipelines:** costs related to water transmission and distribution pipelines

OPERATING COST FUNCTIONALIZATION

WRE worked closely with District staff to evaluate and allocate the operating expenses for FY 2025 to the most closely associated functional categories within the water system, as shown in **Table 3-2**. The total functionalized operating expenses (Line 13) are equal to the operating expenses in the revenue requirement calculation (**Table 3-1**, Line 5). The detailed allocation of the operating expense budget to the functional categories is included in the **Appendix (Table 6-1)**.

Table 3-2: Water Operating Costs by System Functions

Line	Cost Functions	Operating Expenses	Percent of Total
1	Meter	\$505,750	3.8%
2	Customer	\$449,541	3.4%
3	Fire	\$46,500	0.3%
4	Supply	\$3,873,000	29.0%
5	Treatment	\$696,887	5.2%
6	Distribution	\$779,825	5.8%
7	Storage	\$0	0.0%
8	Pumping	\$950,000	7.1%
9	Conservation	\$41,250	0.3%
10	Pipelines	\$0	0.0%
11	Revenue Offset	\$0	0.0%
12	General	\$6,031,445	45.1%
13	Total	\$13,374,198	100.0%

WRE worked with District staff to evaluate and allocate the District's current capital assets to the most closely associated functional categories within the water system, as shown in **Table 3-3**. The detailed allocation of the current capital assets to the functional categories is included in the **Appendix (Table 6-3)**.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

It is standard practice in most water cost-of-service studies to functionalize current capital assets rather than planned capital improvement program (CIP) costs, since the latter can fluctuate more significantly from year to year. The current capital asset base provides a more stable representation of long-term capital needs and their associated costs. The asset valuation methodology used in this study is Replacement Cost Less Depreciation (RCLD), which takes both inflation and depreciation of the District's water system into account. The detailed capital asset list and RCLD valuation are included in the **Appendix (Table 6-2)**.

Table 3-3: Water Capital Assets by System Functions

Line	Cost Functions	Capital Assets (RCLD)	Percent of Total
1	Meter	\$469,907	0.9%
2	Customer	\$0	0.0%
3	Fire	\$0	0.0%
4	Supply	\$6,241,405	12.4%
5	Treatment	\$3,416,064	6.8%
6	Distribution	\$0	0.0%
7	Storage	\$7,852,600	15.7%
8	Pumping	\$569,018	1.1%
9	Conservation	\$0	0.0%
10	Pipelines	\$25,450,245	50.7%
11	Revenue Offset	\$0	0.0%
12	General	\$6,172,920	12.3%
13	Total	\$50,172,159	100.0%

3.4 COST CAUSATION COMPONENTS

COST COMPONENT DEFINITIONS

While the functional categories represent the costs of system functions, cost causation components represent the reasons for why and how those costs are incurred within the system (thus, cost causation). Cost causation components will be referred to as cost components in this report. The next step of the cost-of-service analysis is to allocate the Operating, Capital, and Revenue Offsets in the functional categories between the cost components, most of which directly correspond to a single functional category.

The cost components in this study include the following:

- **Meter:** directly corresponds to the Meter functional category
- **Customer:** directly corresponds to the Customer functional category
- **Fire:** directly corresponds to the Fire functional category
- **Supply:** directly corresponds to the Supply functional category
- **Average Day Demand (Base):** costs associated with delivering water to customers during average water demand conditions (average daily use)
- **Maximum Day Demand (Max Day):** costs associated with providing capacity for and delivering water to customers during maximum day demand conditions (water usage during the highest use day of the year)

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

- **Maximum Hour Demand (Max Hour):** costs associated with providing capacity for and delivering water to customers during maximum hour demand conditions (water usage during the highest hour of highest use day)
- **Conservation:** directly corresponds to the Conservation functional category
- **Revenue Offset:** directly corresponds to the Revenue Offset functional category
- **General:** directly corresponds to the General functional category
- **Pipeline Replacement:** costs associated with the District's pipeline replacement program

SYSTEM-WIDE CAPACITY FACTORS

System-wide capacity factors for the District's water system, shown in **Table 3-4**, are used to allocate costs associated with the Treatment, Pumping, Storage, Distribution, and Pipeline functional categories to the Base, Max Day, and Max Hour cost components. Capacity factors represent the ratio of maximum to average water demand over the course of one year for the entire system. This provides a basis to identify costs incurred to provide water service during average demand conditions and to provide additional capacity during maximum demand conditions.

District staff provided the average day, maximum day, and maximum hour demand capacity factors², which are normalized based on average day demand (meaning that the average day demand is always equal to 1.00).

The percentage allocations to the Base, Max Day, and Max Hour cost components based on the average day, maximum day, and maximum demand capacity factors are calculated as follows:

- Average day demand is allocated entirely to Base
- Max day demand is allocated proportionately to Base³ and Max Day⁴
- Max hour demand is allocated proportionately to Base⁵, Max Day⁶, and Max Hour⁷

Table 3-4: Water System-Wide Capacity Allocation

Line	System-Wide Capacity	Capacity Factor	Base	Max Day	Max Hour	Total
1	Average Day Demand	1.00	100%	0%	0%	100%
2	Max Day Demand	1.50	67%	33%	0%	100%
3	Max Hour Demand	3.38	30%	15%	56%	100%

² Staff data of District-specific average and maximum demands based on pressure zones.

³ $1.00/1.50 = 67\%$

⁴ $(1.50-1.00)/1.50 = 33\%$

⁵ $1.00/3.38 = 30\%$

⁶ $(1.50-1.00)/3.38 = 15\%$

⁷ $(3.38-1.50)/3.38 = 56\%$

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

COST COMPONENT ALLOCATION FACTORS

Table 3-5 shows the factors used to allocate the functionalized costs to the cost components. For the cost components that directly correlate to a functional category (Meter, Customer, Fire, Supply, Conservation, Revenue Offset, and General), the functionalized costs are allocated entirely to the matching cost component. Treatment, Pumping, Storage, and Pipeline facilities (Line 5, Lines 7-8, Line 10) are sized based on maximum day demand and are allocated based on the Max Day capacity factor (**Table 3-4**, Line 2). Distribution facilities (Line 6) are sized based on maximum day and maximum hour demand, respectively, and are allocated based on the average of Max Day and Max Hour capacity factors (**Table 3-4**, Line 3).

Table 3-5: Water System Function Allocation to Cost Components

Line	Cost Functions	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conservation	Pipeline Replacement	Revenue Offset	General	Total
1	Meter	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
2	Customer	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
3	Fire	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	100%
4	Supply	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
5	Treatment	0%	0%	0%	0%	67%	33%	0%	0%	0%	0%	0%	100%
6	Distribution	0%	0%	0%	0%	30%	15%	56%	0%	0%	0%	0%	100%
7	Storage	0%	0%	0%	0%	67%	33%	0%	0%	0%	0%	0%	100%
8	Pumping	0%	0%	0%	0%	67%	33%	0%	0%	0%	0%	0%	100%
9	Conservation	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
10	Pipelines	0%	0%	0%	0%	67%	33%	0%	0%	0%	0%	0%	100%
11	Revenue Offset	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
12	General	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%

OPERATING COST COMPONENT ALLOCATION

Table 3-6 shows the operating cost allocation by cost component. The functionalized operating expenses from **Table 3-2** are allocated based on the cost component allocation factors in **Table 3-5**. The operating allocation (Line 14) is derived from the total operating expenses by cost component (Line 13) and represents the proportion of the Operating revenue requirement that will be allocated to each cost component.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 3-6: Water Operating Allocation by Cost Component

Line	Operating Expenses	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conserv- ation	Pipeline Replace- ment	Revenue Offset	General	Total
1	Meter	\$505,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$505,750
2	Customer	\$0	\$449,541	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$449,541
3	Fire	\$0	\$0	\$46,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,500
4	Supply	\$0	\$0	\$0	\$3,873,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,873,000
5	Treatment	\$0	\$0	\$0	\$0	\$464,591	\$232,296	\$0	\$0	\$0	\$0	\$0	\$696,887
6	Distribution	\$0	\$0	\$0	\$0	\$230,717	\$115,359	\$433,749	\$0	\$0	\$0	\$0	\$779,825
7	Storage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Pumping	\$0	\$0	\$0	\$0	\$633,333	\$316,667	\$0	\$0	\$0	\$0	\$0	\$950,000
9	Conservation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41,250	\$0	\$0	\$0	\$41,250
10	Pipelines	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Revenue Offset	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,031,445	\$6,031,445
13	Total	\$505,750	\$449,541	\$46,500	\$3,873,000	\$1,328,642	\$664,321	\$433,749	\$41,250	\$0	\$0	\$6,031,445	\$13,374,198
14	Operating Allocation	3.8%	3.4%	0.3%	29.0%	9.9%	5.0%	3.2%	0.3%	0.0%	0.0%	45.1%	100.0%

CAPITAL COST COMPONENT ALLOCATION

Table 3-7 shows the capital cost allocation by cost component. The functionalized capital assets from **Table 3-3** are allocated based on the cost component allocation factors in **Table 3-5**. The capital allocation (Line 14) is derived from the total capital asset value by cost component (Line 13) and represents the proportion of the Capital revenue requirement that will be allocated to each cost component.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 3-7: Water Capital Allocation by Cost Component

Line	Capital Assets (RCLD)	Meter	Cust-omer	Fire	Supply	Base	Max Day	Max Hour	Conserv-ation	Pipeline Replace-ment	Revenue Offset	General	Total
1	Meter	\$469,907	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$469,907
2	Customer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Fire	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Supply	\$0	\$0	\$0	\$6,241,405	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,241,405
5	Treatment	\$0	\$0	\$0	\$0	\$2,277,376	\$1,138,688	\$0	\$0	\$0	\$0	\$0	\$3,416,064
6	Distribution	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Storage	\$0	\$0	\$0	\$0	\$5,235,066	\$2,617,533	\$0	\$0	\$0	\$0	\$0	\$7,852,600
8	Pumping	\$0	\$0	\$0	\$0	\$379,346	\$189,673	\$0	\$0	\$0	\$0	\$0	\$569,018
9	Conservation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
10	Pipelines	\$0	\$0	\$0	\$0	\$16,966,830	\$8,483,415	\$0	\$0	\$0	\$0	\$0	\$25,450,245
11	Revenue Offset	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12	General	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,172,920	\$6,172,920
13	Total	\$469,907	\$0	\$0	\$6,241,405	\$24,858,618	\$12,429,309	\$0	\$0	\$0	\$0	\$6,172,920	\$50,172,159
14	Capital Allocation	0.9%	0.0%	0.0%	12.4%	49.5%	24.8%	0.0%	0.0%	0.0%	0.0%	12.3%	100.0%

REVENUE OFFSET ALLOCATION

Table 3-8 shows the allocation of revenue offsets to each cost component. Non-operating revenue (Line 2) and developer contributions (Line 3) are designated for capital expenditures and can only be used to reduce the capital revenue requirement. For non-operating revenue and developer contributions the allocation by cost component is calculated from the capital cost allocation (**Table 3-7**, Line 14) multiplied by each revenue offset amount (**Table 3-1**, Lines 9 and 10). Only rentals and cell tower revenue (Line 1) can be allocated to the revenue offset cost component. The revenue offsets (Line 4) in each cost component will be applied to the total revenue requirement based on these allocations.

Table 3-8: Revenue Offset Allocation by Cost Component

Line	Revenue Offsets	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conserva-tion	Pipeline Replace-ment	Revenue Offset	General	Total
1	Rentals and Cell Tower Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$97,899	\$0	\$97,899
2	Non-Operating Revenue	\$4,917	\$0	\$0	\$65,310	\$260,120	\$130,060	\$0	\$0	\$0	\$0	\$64,593	\$525,000
3	Developer Contributions	\$2,060	\$0	\$0	\$27,368	\$109,003	\$54,501	\$0	\$0	\$0	\$0	\$27,068	\$220,000
4	Total	\$6,978	\$0	\$0	\$92,678	\$369,122	\$184,561	\$0	\$0	\$0	\$97,899	\$91,661	\$842,899

3.5 SYSTEM CAPACITY ALLOCATIONS

The costs for certain system functions are based on the capacity requirements related to that function. For example, meter-related costs are allocated based on meter capacity, which is defined by the safe maximum operating capacity of each meter size. This section describes and defines capacity requirements and allocations relating to water meters, private fire lines, customer water usage, and fire protection.

EQUIVALENT METER UNITS

Costs related to meter capacity increase based on meter size. Therefore, equivalent meter units are calculated to provide a basis from which to allocate costs in proportion to meter size. Equivalent meter calculations are shown in **Table 3-9**.

Equivalent meters are calculated based on meter capacity ratios, which represent the safe operating capacity of a water meter relative to the base meter size. For this study, the base meter size is a 3/4" meter, which is the most common meter size in the District's system. Capacity in gallons per minute (gpm) is derived from the AWWA M1 Manual. The meter ratio for a 1.5" meter is 3.33, which means that the capacity of a 1.5" meter is 3.33 times that of a 3/4" meter. Equivalent meters for each meter size are calculated by multiplying the meter counts by the meter ratio in each size.

Table 3-9: Equivalent Meter Units

Line	Meter Size	Capacity (gpm)	Meter Ratio	Total
1	3/4"	30	1.00	7,310
2	1"	50	1.67	1,061
3	1 1/2"	100	3.33	155
4	2"	160	5.33	67
5	3"	350	11.67	29
6	4"	630	21.00	2
7	Total - Meter Counts			8,624
8	Total - Equivalent Meters			10,333

EQUIVALENT FIRE LINES

Costs related to fire protection capacity increase exponentially based on fire line diameter and are attributable to both public fire hydrants and private fire connections. Therefore, equivalent fire lines are calculated to provide a basis from which to allocate costs in proportion to fire line size, and between public and private fire connections. Private and public fire line counts and equivalent fire line calculations are shown below in **Table 3-10**.

The capacity of a fire line is based on the diameter of the connection and is equal to the connection diameter in inches raised to power of 2.63 based on the Hazen-Williams equation. The fire line ratio is the fire capacity of each diameter size divided by the base fire line, which is a

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

1" diameter. Equivalent fire lines are calculated by multiplying the fire line ratio of each diameter size by the number of connections by size.

The concept of equivalent fire lines provides a methodology to compare the capacity requirements of both private fire protection and public hydrants. The fire protection capacity attributed to private fire connections is equal to 9.1%; the remaining 90.9% is attributed to public fire hydrants (Line 10). This percentage split between private fire connections (9.1%) and public fire hydrants (90.9%) is based on the proportion of equivalent lines for private fire and public fire, shown in **Table 3-10**.

Table 3-10: Equivalent Fire Lines

Line	Fire Line Diameter	Fire Capacity	Fire Line Ratio	Private Fire	Public Fire	Total
1	1"	1.00	1.00	1	0	1
2	2"	6.19	6.19	10	0	10
3	3"	17.98	17.98	1	0	1
4	4"	38.32	38.32	75	0	75
5	6"	111.31	111.31	16	651	667
6	8"	237.21	237.21	7	0	7
7	10"	426.58	426.58	2	0	2
8	Total - Fire Lines			112	651	763
9	Total - Equivalent Lines			7,249	72,463	79,713
10	Percent of Equivalent Lines			9.1%	90.9%	100.0%

CUSTOMER DEMAND AND FIRE CAPACITY

Cost-of-service allocations are typically based on system-wide capacity (which is the combination of customer demand and fire protection). However, Max Day and Max Hour cost components are further allocated between customer demand and fire protection based on their proportion share of each within the water system.

Table 3-11 shows the maximum month capacity factor by customer class and tier. The maximum monthly usage is divided by the average monthly usage to determine the capacity factor for all customer groups. Max Month capacity factor data is typically used as a proxy for Max Day capacity factors in lieu of daily water use data for all customers. Max Month is used as a proxy for Max Day data since they share similar characteristics; the Max Day would typically occur during the Max Month of water consumption. Water usage data is provided and analyzed based on each billing period. Daily water use data at the customer level was not available at the time of the study.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 3-11: Max Month Capacity Factor by Customer Class and Tier

Line	Customer Class	Capacity Factor
1	Single Family	
2	Tier 1	1.09
3	Tier 2	2.04
4	Tier 3	2.04
5	Multi-Family/Commercial	1.06
6	Irrigation	1.18

Table 3-12 shows the customer demand capacity calculations for Max Day and Max Hour. Max Day capacity is from **Table 3-11**. Max Hour capacity is equal to the customer-specific Max Day capacity increased by the ratio of system-wide Max Hour to system-wide Max Day (**Table 3-4**). To calculate the daily use for each customer class, the annual use is divided by 365 days.

Max Day demand is calculated by multiplying the daily use in kgal by the Max Day capacity factor for each customer class and tier. Max Day extra capacity is equal to Max Day demand less daily use. Similarly, Max Hour demand is calculated by multiplying the daily use in kgal by the Max Hour capacity factor for each customer class and tier. Max Hour extra capacity is equal to the Max Hour demand less Max Day demand.

The total Max Day and Max Hour extra capacity (Line 7) represents the capacity required to meet customer demand that will be used to allocate Max Day and Max Hour costs between public fire hydrant capacity, private fire line capacity, and customer demand capacity.

Table 3-12: Customer Demand Capacity

Line	Customer Class	Annual Use (kgal)	Daily Use (kgal)	Max Day Capacity Factor	Max Day Demand	Max Day Extra Capacity	Max Hour Capacity Factor	Max Hour Demand	Max Hour Extra Capacity
1	Single Family								
2	Tier 1	389,479	1,067	1.09	1,161	94	2.45	2,617	1,456
3	Tier 2	104,942	288	2.04	587	300	4.60	1,323	736
4	Tier 3	116,077	318	2.04	649	331	4.60	1,463	814
5	Multi-Family/Commercial	333,526	914	1.06	972	59	2.40	2,191	1,219
6	Irrigation	58,522	160	1.18	189	29	2.66	426	237
7	Total	1,002,546	2,747		3,559	813		8,020	4,461

Table 3-13 shows the calculation of fire capacity requirements in the District's system and the capacity allocation between fire and customer demand. The extra capacity required for fire is based on a maximum fire that lasts two hours using 1,000 gpm of water based on a typical residential fire. The fire capacity is allocated between public hydrants (Line 7) and private fire (Line 8) using the proportion of equivalent fire lines attributed to each service (**Table 3-10**).

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

The customer demand (**Table 3-12**), public hydrant, and private fire extra capacity (Lines 6-8) are added together to form the total capacity requirements of the system within the Max Day and Max Hour cost components. From there, the capacity allocation factors (Lines 12-14) are calculated based on the proportion of the total capacity requirements related to each service. These allocations are used in a later section of the report to reallocate Max Day and Max Hour costs.

Table 3-13: Capacity Allocation by Fire and Customer Demand

Line	Fire Capacity	Max Day	Max Hour
1	Hours for Fire	2	2
2	Capacity for Fire (gpm)	1,000	1,000
3	Fire Extra Capacity	120 ⁸	1,320 ⁹
4			
5	Capacity Requirements (kgal/day)		
6	Customer Demand	830	4,483
7	Public Hydrants	109	1,200
8	Private Fire	11	120
9	Total	950	5,803
10			
11	Capacity Allocation		
12	Customer Demand	87%	77%
13	Public Hydrants	11%	21%
14	Private Fire	1%	2%
15	Total	100%	100%

⁸ 2 hours x 1,000 gpm x 60 minutes/hour x 1 kgal/1,000 gallons

⁹ (1,000 gpm x 60 minutes/hour x 24 hours/day x 1 kgal/1,000 gallons) - 120 (Max Day Capacity)

3.6 ALLOCATION TO COST COMPONENTS

PRELIMINARY COST-OF-SERVICE ALLOCATION AND GENERAL REALLOCATION

Table 3-14 shows the preliminary cost-of-service allocation prior to any adjustments and the adjusted cost-of-service allocations after the General cost reallocation. The Operating costs (Line 1) are equal to the total Operating revenue requirements less revenue offsets (**Table 3-1**, Line 18) allocated to each cost component based on the Operating allocation (**Table 3-6**, Line 14). The Capital costs (Line 2) are equal to the total Capital revenue requirements less revenue offsets (**Table 3-1**, Line 18) allocated to each cost component based on the Capital allocation (**Table 3-7**, Line 14). The pipeline replacement costs (Line 3) are equal to the total pipeline requirements less revenue offsets (**Table 3-1**, Line 18). The revenue offsets (Line 4) are equal to the total revenue offsets amount (**Table 3-1**, Line 11) and are allocated based on the Revenue Offset allocation (**Table 3-8**). Note that the total cost-of-service (Line 5) is equal to the total rate revenue requirement for FY 2025 (**Table 3-1**, Line 17).

The next step is to reallocate General costs (Line 5) based on the proportion of costs in each cost component (except Revenue Offset, Pipeline, and Supply which are restricted to specific revenues only) in the preliminary allocation. The total revenue requirement (Line 7) stays the same after the General cost reallocation.

Table 3-14: Cost-of-Service Allocation by Cost Component (Preliminary, General)

Line	Revenue Requirement	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conservation	Pipeline Replacement	Revenue Offset	General	Total
1	Operating	\$312,387	\$277,668	\$28,722	\$2,392,236	\$820,662	\$410,331	\$267,914	\$25,479	\$0	\$0	\$3,725,443	\$8,260,842
2	Capital	\$36,961	\$0	\$0	\$490,921	\$1,955,267	\$977,634	\$0	\$0	\$0	\$0	\$485,534	\$3,946,317
3	Pipeline Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,944,351	\$0	\$0	\$3,944,351
4	Revenue Offsets	(\$6,978)	\$0	\$0	(\$92,678)	(\$369,122)	(\$184,561)	\$0	\$0	\$0	(\$97,899)	(\$91,661)	(\$842,899)
5	Primary Allocation	\$342,370	\$277,668	\$28,722	\$2,790,479	\$2,406,808	\$1,203,404	\$267,914	\$25,479	\$3,944,351	(\$97,899)	\$4,119,316	\$15,308,611
6	General Cost Allocation	\$309,802	\$251,255	\$25,989	\$0	\$2,177,858	\$1,088,929	\$242,428	\$23,055	\$0	\$0	(\$4,119,316)	\$0
7	Adjusted For General	\$652,172	\$528,923	\$54,711	\$2,790,479	\$4,584,666	\$2,292,333	\$510,342	\$48,534	\$3,944,351	(\$97,899)	\$0	\$15,308,611

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

FIRE PROTECTION AND CAPACITY REALLOCATION

Table 3-15 shows the cost-of-service in each cost component after reallocating fire protection and capacity-related costs. The cost-of-service after General cost reallocation (Line 1) is from **Table 3-14** (Line 7).

Public Fire costs (Line 2) are reallocated from Fire, Max Day, and Max Hour based on the proportion of public fire capacity related to those components. Public Fire costs within the Fire cost component are reallocated based on the proportion of equivalent fire lines for public hydrants (**Table 3-10**, Line 10). Public Fire costs within the Max Day and Max Hour components are reallocated based on the proportion of capacity related to public fire protection (**Table 3-13**, Line 13). All Public Fire costs are reallocated to the Meter component, since public fire hydrants deliver water to all parcels in the event of a fire. Private Fire costs (Line 3) are reallocated from Max Day and Max Hour to the Fire cost component based on the proportion of capacity related to private fire service (**Table 3-13**, Line 14).

Finally, the capacity reallocation (Line 5) adjusts the costs in Max Day and Max Hour to recover extra capacity costs in the Meter cost component. This allocation increases the fixed revenue recovery from 40% to 45%, which will provide more rate stability for the District while ensuring that fixed charges recover fixed costs. The Board provided direction to increase the fixed revenue recovery percentage.

Table 3-15: Cost-of-Service Allocation by Cost Component (Fire Protection, Capacity)

Line	Revenue Requirement	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conserv- ation	Pipeline Replace- ment	Revenue Offset	Total
1	Adjusted for General	\$652,172	\$528,923	\$54,711	\$2,790,479	\$4,584,666	\$2,292,333	\$510,342	\$48,534	\$3,944,351	(\$97,899)	\$15,308,611
2	Public Fire Allocation	\$423,831	\$0	(\$49,735)	\$0	\$0	(\$268,163)	(\$105,933)	\$0	\$0	\$0	\$0
3	Private Fire Allocation	\$0	\$0	\$37,425	\$0	\$0	(\$26,828)	(\$10,598)	\$0	\$0	\$0	\$0
4	Adjusted for Fire	\$1,076,003	\$528,923	\$42,401	\$2,790,479	\$4,584,666	\$1,997,342	\$393,811	\$48,534	\$3,944,351	(\$97,899)	\$15,308,611
5	Capacity Reallocation	\$1,524,603	\$0	\$0	\$0	(\$687,700)	(\$699,070)	(\$137,834)	\$0	\$0	\$0	\$0
6	Adjusted for Capacity	\$2,600,606	\$528,923	\$42,401	\$2,790,479	\$3,896,966	\$1,298,273	\$255,977	\$48,534	\$3,944,351	(\$97,899)	\$15,308,611

FINAL COST-OF-SERVICE ALLOCATION

Table 3-16 shows the final cost-of-service allocation based on the adjustments for General, Fire, and Capacity from the prior report tables. The Fire component, after removing costs related to public fire protection, now represents Private Fire costs and is renamed in the following table. The Max Day and Max Hour components now represent the capacity requirements of customer water demand only and do not include costs related to public or private fire protection capacity.

Table 3-16: Cost-of-Service Allocation by Cost Component (Final)

Line	Cost Components	Final Cost Allocation
1	Meter	\$2,600,606
2	Customer	\$528,923
3	Private Fire	\$42,401
4	Supply	\$2,790,479
5	Base	\$3,896,966
6	Max Day	\$1,298,273
7	Max Hour	\$255,977
8	Conservation	\$48,534
9	Pipeline Replacement	\$3,944,351
10	Revenue Offset	(\$97,899)
11	Total	\$15,308,611

3.7 UNIT COST CALCULATION

UNITS OF SERVICE DEFINITIONS

The appropriate units of service are then established for each cost component based on cost causation, which is shown in **Table 3-17**. Cost components to be recovered by the fixed charges are assigned units of service based on the number of equivalent meters (**Table 3-9**), customers (sum of meter counts and private fire line counts from **Table 3-9** and **Table 3-10**), and equivalent fire lines (**Table 3-10**). Cost components to be recovered by the quantity charges are assigned units based on annual usage in kgal or extra capacity for Max Day or Max Hour (**Table 3-12**). Pipeline replacement costs are to be recovered by fixed charges on potable and private fire customers, therefore separate cost components are shown for each.

Table 3-17: Units of Service Definitions

Line	Cost Components	Units of Service Definition	Units of Service	Units
1	Meter	<i>Equivalent meters x 12 months</i>	123,992	equiv. meters/year
2	Customer	<i>Meter & private fire counts x 12 months</i>	104,832	bills/year
3	Fire	<i>Equivalent fire lines x 12 months</i>	86,993	equiv. lines/year
4	Supply	<i>Annual usage in kgal</i>	1,002,546	kgal/year
5	Base	<i>Annual usage in kgal</i>	1,002,546	kgal/year
6	Max Day	<i>Max day extra capacity</i>	813	kgal/day
7	Max Hour	<i>Max hour extra capacity</i>	4,461	kgal/day
8	Conservation	<i>Annual usage in kgal</i>	1,002,546	kgal/year
9	Pipeline - Potable	<i>Equivalent meters x 12 months</i>	123,992	equiv. meters/year
10	Pipeline - Private Fire	<i>Equivalent fire lines x 12 months</i>	86,993	equiv. lines/year
11	Revenue Offset	<i>Annual usage in kgal</i>	1,002,546	kgal/year

UNIT COST BY COST COMPONENT

Table 3-18 shows the calculation of unit costs by each cost component, except for pipeline replacement. The final cost-of-service allocation (**Table 3-16**) is divided by the units of service (**Table 3-17**) for each cost component to derive the unit cost. These unit costs will determine the cost-of-service by customer class.

Table 3-18: Unit Cost by Cost Component

Line	Cost Components	Final Cost Allocation	Units of Service	Unit Cost	Units
1	Meter	\$2,600,606	123,992	\$20.97	equiv. meter
2	Customer	\$528,923	104,832	\$5.05	bill
3	Fire	\$42,401	86,993	\$0.49	equiv. line
4	Supply	\$2,790,479	1,002,546	\$2.78	kgal
5	Base	\$3,896,966	1,002,546	\$3.89	kgal
6	Max Day	\$1,298,273	813	\$1,597.86	kgal/day
7	Max Hour	\$255,977	4,461	\$57.38	kgal/day
8	Conservation	\$48,534	1,002,546	\$0.05	kgal
9	Revenue Offset	(\$97,899)	1,002,546	(\$0.10)	kgal

Table 3-19 shows the pipeline replacement unit cost for potable and private fire customers, collected through annual capital charges and monthly meter charges. The total pipeline replacement cost (Line 3) is equal to the total pipeline cost-of-service allocation (**Table 3-16**, Line 9). The portion of pipeline replacement cost collected from Private Fire customers is calculated from the portion of pipeline replacement cost allocated to fire service (Line 1) multiplied by the portion of equivalent fire lines for private fire service¹⁰ (**Table 3-10**, Line 10). The

¹⁰ The 2021 “Water and Wastewater Rate Study Report” conducted by Raftelis Financial Consultants, Inc. (Raftelis) is the source in this report the 15% allocation of pipeline capacity to fire flows. “Based on ISO standards, 15% of the [distribution] system costs are assigned to fire flow” (Raftelis, p 26).

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

remainder of pipeline replacement costs not collected from private fire customers are collected from potable water customers. Based on discussions with District staff, it was determined that 52% of the pipeline replacement cost for potable and private fire customers would be collected from annual capital charges to maintain the annual capital charge at approximately the same amount as the current charges. The remainder would be collected from monthly meter charges.

The total pipeline cost collected from capital charges and meter charges for (Line 5 and 8) is divided by potable and private fire units of service (**Table 3-17**) to determine the pipeline replacement unit cost (Line 7 and 10) collected through annual capital charges and monthly meter charges for each customer.

Table 3-19: Pipeline Replacement Unit Cost

Line	Pipeline Replacement Cost	Total	Potable Water	Private Fire
1	Pipeline Allocation to Fire Service	100.0%	85.0%	15.0%
2	Pipeline Reallocation to Private Fire	100.0%	98.6%	1.4%
3	Pipeline Cost	\$3,944,351	\$3,890,543	\$53,807
4	Portion Collected from Capital Charges		52%	52%
5	Cost Collected from Capital Charges		\$2,005,141	\$27,732
6	Units of Service		10,333	7,249
7	Capital Charge Unit Cost (Annual)		\$194.06	\$3.83
8	Cost Remainder Collected from Meter Charges		\$1,885,403	\$26,076
9	Units of Service		123,992	86,993
10	Meter Charge Unit Cost (Monthly)		\$15.21	\$0.30

3.8 COST-OF-SERVICE BY CUSTOMER CLASS

The final step in the cost-of-service analysis is to determine the cost to serve each customer class based on the cost components, which is shown in **Table 3-20**. The unit cost by cost component (**Table 3-18**) is multiplied by the units of service for each customer class to determine the cost to serve each class. Note that the total cost-of-service is equal to the total rate revenue requirement for FY 2025 (**Table 3-1**, Line 17). Though **Table 3-20** shows that all pipeline replacement is allocated towards capital charges, in reality the pipeline replacement cost will be reallocated across meter charges and capital charges according to **Table 3-19**.

Table 3-20: Cost-of-Service Allocation by Cost Component and Customer Class

Line	Customer Class	Meter	Customer	Fire	Supply	Base	Max Day	Max Hour	Conservation	Pipeline Replacement	Revenue Offset	Total
1	Single Family	\$1,998,653	\$448,822	\$0	\$1,699,255	\$2,373,047	\$1,158,902	\$172,455	\$29,555	\$0	(\$59,615)	\$7,821,073
2	Tier 1				\$1,084,073	\$1,513,932	\$150,656	\$83,524				
3	Tier 2				\$292,095	\$407,917	\$478,726	\$42,225				
4	Tier 3				\$323,087	\$451,198	\$529,521	\$46,705				
5	Multi-Family/Commercial	\$539,786	\$68,416	\$0	\$928,334	\$1,296,439	\$93,477	\$69,925	\$16,146	\$0	(\$32,569)	\$2,979,955
6	Irrigation	\$62,167	\$4,904	\$0	\$162,890	\$227,480	\$45,894	\$13,597	\$2,833	\$0	(\$5,715)	\$514,050
7	Private Fire	\$0	\$6,781	\$42,401	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$49,182
8	Capital Charge	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,944,351	\$0	\$3,944,351
9	Total	\$2,600,606	\$528,923	\$42,401	\$2,790,479	\$3,896,966	\$1,298,273	\$255,977	\$48,534	\$3,944,351	(\$97,899)	\$15,308,611

4. WATER RATES

4.1 RATE DESIGN METHODOLOGY

A five-year proposed water rate schedule was developed based on the results of the proposed revenue adjustments and cost-of-service analysis. The key steps in developing the proposed rate schedule are outlined below:

- **Rate structure evaluation:** The existing rate structure is evaluated, and any proposed changes are identified. Proposed rate structure changes are typically intended to address specific policy objectives or to improve legal defensibility.
- **Test year rate development:** Rates are calculated for the proposed rate structure for the cost-of-service test year (FY 2025). Rate calculations directly incorporate the unit costs developed in the cost-of-service analysis. The test year rates are revenue neutral, then are increased based on the proposed financial plan revenue adjustments. Although total rate revenues in the first year of adjustments (FY 2025) are designed to increase by the proposed revenue adjustment percentage (8% in FY 2026), the proposed percentage increase to each rate/charge varies due to the updated cost-of-service allocations.
- **Five-year rate schedule development:** Proposed rates for the full five-year period are calculated by increasing the cost-of-service rates by the proposed annual revenue adjustment percentages from the proposed financial plan.

4.2 PROPOSED CHANGES TO RATE STRUCTURE

WRE worked closely with the District's Board of Directors and staff to determine the most appropriate water rate structure that meets the District's needs. A water budget analysis was developed to define indoor and outdoor water use for Single Family Residential customers in the District's service area. The District Board provided direction to develop proposed water rates based on the results of the water budget analysis.

The following changes were made to the rate structure as part of the study:

- **Single Family Residential customers:** Proposed usage rates for Single Family customers are based on the water budget analysis. Tier 1 is defined as the "indoor water budget," which assumes 4 people per household and 47 gallons per capita per day (gpcd) of water use. Tier 1 is the same for all Single Family customers and is 6 kgal per month. Tier 2 is defined as the "outdoor water budget," which takes lot size, evapotranspiration data, and an evapotranspiration adjustment factor into consideration. Tier 2 will vary between Single Family customers based on lot size. The results of the water budget analysis are discussed in **Section 2** of this report.
- **Irrigation customers:** Proposed usage rates for Irrigation customers are recommended to change to a uniform rate, compared to the current two-tiered usage rate. Irrigation

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

water use is a small portion of the District's total water use (approximately 6% of use) and the usage characteristics between Tiers 1 and Tier 2 are generally similar. This change is recommended to simplify the water rate structure.

- **Water Reliability rate component:** Proposed usage rates for all customers will generate approximately \$500,000 of rate revenue to provide funding for new sources of supply (such as recycled water). These revenues will fund the District's new Water Supply Reliability Reserve; the funding amount was based on direction from the Board. This benefits all customers because increasing sources of supply, including recycled water, preserves and protects existing sources of supply and ensures continuity of service.

4.3 PROPOSED MONTHLY METER CHARGES

REVENUE NEUTRAL RATES

Table 4-1 shows the revenue neutral monthly meter charge calculations. The Meter and Customer unit costs are from **Table 3-18** (Lines 1-2). The Pipeline Replacement unit cost is from **Table 3-19** (Line 10). Pipeline Replacement and Meter unit costs are multiplied by the meter capacity ratio; Customer costs do not vary based on meter size and thus are the same for all meter sizes. The revenue neutral rate represents the cost-of-service analysis for FY 2025 but does not include the proposed revenue adjustments for the first year of rates in FY 2026.

Table 4-1: Revenue Neutral Monthly Meter Charges

Line	Meter Size	Meter Ratio	Meter Cost	Customer Cost	Pipeline Replacement	Revenue Neutral Rate
1	3/4"	1.00	\$20.97	\$5.05	\$15.21	\$41.23
2	1"	1.67	\$34.96	\$5.05	\$25.34	\$65.35
3	1 1/2"	3.33	\$69.91	\$5.05	\$50.69	\$125.65
4	2"	5.33	\$111.86	\$5.05	\$81.10	\$198.01
5	3"	11.67	\$244.70	\$5.05	\$177.40	\$427.15
6	4"	21.00	\$440.45	\$5.05	\$319.32	\$764.83

PROPOSED RATES WITH ADJUSTMENT

Table 4-2 shows the proposed monthly meter charges for FY 2026 based on the revenue neutral rate (**Table 4-1**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-2: Proposed Monthly Meter Charges after Adjustment

Line	Meter Size	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate (Inside District)	Difference (\$)	Difference (%)
1	3/4"	\$41.23	\$44.53	\$34.06	\$10.47	31%
2	1"	\$65.35	\$70.58	\$50.38	\$20.21	40%
3	1 1/2"	\$125.65	\$135.70	\$91.17	\$44.53	49%
4	2"	\$198.01	\$213.85	\$140.13	\$73.72	53%
5	3"	\$427.15	\$461.32	\$295.16	\$166.17	56%
6	4"	\$764.83	\$826.02	\$523.62	\$302.40	58%

Table 4-3 shows the proposed monthly meter charges for FY 2026 based on the revenue neutral rate (**Table 4-1**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent for outside district customers. Outside district customers are charged a \$0.40 administrative fee per month.

Table 4-3: Proposed Monthly Meter Charges after Adjustment (Outside District)

Line	Meter Size	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate (Outside District)	Difference (\$)	Difference (%)
1	3/4"	\$41.23	\$44.93	\$34.26	\$10.67	31%
2	1"	\$65.35	\$70.98	\$50.58	\$20.41	40%
3	1 1/2"	\$125.65	\$136.10	\$91.37	\$44.73	49%
4	2"	\$198.01	\$214.25	\$140.33	\$73.92	53%
5	3"	\$427.15	\$461.72	\$295.36	\$166.37	56%
6	4"	\$764.83	\$826.42	\$523.72	\$302.70	58%

4.4 PROPOSED MONTHLY PRIVATE FIRE PROTECTION CHARGES

REVENUE NEUTRAL RATES

Table 4-4 shows the revenue neutral monthly private fire protection charge calculations. The Private Fire and Customer unit costs are from **Table 3-18** (Lines 2-3). The Pipeline Replacement unit cost is from **Table 3-19** (Line 10). Private Fire and Pipeline Replacement unit costs are multiplied by the fire line ratio; Customer costs do not vary based on fire line size and thus are the same for all sizes. The revenue neutral rate represents the cost-of-service analysis for FY 2025 but does not include the proposed revenue adjustments for the first year of rates in FY 2026.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-4: Revenue Neutral Monthly Private Fire Protection Charges

Line	Fire Line Diameter	Fire Line Ratio	Private Fire Cost	Customer Cost	Pipeline Replacement	Revenue Neutral Rate
1	1"	1.00	\$0.49	\$5.05	\$0.30	\$5.84
2	2"	6.19	\$3.02	\$5.05	\$1.86	\$9.92
3	3"	17.98	\$8.76	\$5.05	\$5.39	\$19.20
4	4"	38.32	\$18.68	\$5.05	\$11.49	\$35.21
5	6"	111.31	\$54.25	\$5.05	\$33.36	\$92.67
6	8"	237.21	\$115.62	\$5.05	\$71.10	\$191.77
7	10"	426.58	\$207.92	\$5.05	\$127.86	\$340.83

PROPOSED RATES WITH ADJUSTMENT

Table 4-5 shows the proposed monthly private fire protection charges for FY 2026 based on the revenue neutral rate (**Table 4-4**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent.

Table 4-5: Proposed Monthly Private Fire Protection Charges after Adjustment

Line	Fire Line Diameter	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate	Difference (\$)	Difference (%)
1	1"	\$5.84	\$6.31	\$10.59	(\$4.29)	-40%
2	2"	\$9.92	\$10.72	\$15.85	(\$5.13)	-32%
3	3"	\$19.20	\$20.74	\$27.78	(\$7.04)	-25%
4	4"	\$35.21	\$38.03	\$48.37	(\$10.34)	-21%
5	6"	\$92.67	\$100.08	\$122.25	(\$22.17)	-18%
6	8"	\$191.77	\$207.11	\$249.70	(\$42.59)	-17%
7	10"	\$340.83	\$368.10	\$441.39	(\$73.29)	-17%

4.5 PROPOSED ANNUAL CAPITAL CHARGES

REVENUE NEUTRAL RATES

Table 4-6 shows the revenue neutral annual capital charge calculations for potable water customers. The Pipeline Replacement unit cost is from **Table 3-19** (Line 7). Pipeline Replacement unit costs are multiplied by the meter ratio. The revenue neutral rate represents the cost-of-service analysis for FY 2025 but does not include the proposed revenue adjustments for the first year of rates in FY 2026.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-6: Revenue Neutral Annual Capital Charges (Potable Water)

Line	Meter Size	Meter Ratio	Pipeline Replacement Cost	Revenue Neutral Rate
1	3/4"	1.00	\$32.34	\$194.06
2	1"	1.67	\$53.91	\$323.44
3	1 1/2"	3.33	\$107.81	\$646.87
4	2"	5.33	\$172.50	\$1,034.98
5	3"	11.67	\$377.34	\$2,264.02
6	4"	21.00	\$679.20	\$4,075.23

Table 4-7 shows the revenue neutral annual capital charge calculations for private water customers. The Pipeline Replacement unit cost is from **Table 3-19** (Line 7). Pipeline Replacement unit costs are multiplied by the fire line ratio. The revenue neutral rate represents the cost-of-service analysis for FY 2025 but does not include the proposed revenue adjustments for the first year of rates in FY 2026.

Table 4-7: Revenue Neutral Annual Capital Charges (Private Fire)

Line	Fire Line Diameter	Fire Line Ratio	Pipeline Replacement Cost	Revenue Neutral Rate
1	1"	1.00	\$0.64	\$3.83
2	2"	6.19	\$3.95	\$23.69
3	3"	17.98	\$11.46	\$68.79
4	4"	38.32	\$24.43	\$146.59
5	6"	111.31	\$70.97	\$425.81
6	8"	237.21	\$151.23	\$907.41
7	10"	426.58	\$271.97	\$1,631.83

PROPOSED RATES WITH ADJUSTMENT

Table 4-8 shows the proposed annual capital charges for FY 2026 based on the revenue neutral rate (**Table 4-6**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent for potable water customers.

Table 4-8: Proposed Annual Capital Charges After Adjustment (Potable Water)

Line	Meter Size	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate	Difference (\$)	Difference (%)
1	3/4"	\$194.06	\$209.59	\$194.06	\$15.53	8%
2	1"	\$323.44	\$349.32	\$323.44	\$25.88	8%
3	1 1/2"	\$646.87	\$698.62	\$646.87	\$51.75	8%
4	2"	\$1,034.98	\$1,117.78	\$1,035.00	\$82.78	8%
5	3"	\$2,264.02	\$2,445.15	\$2,264.71	\$180.44	8%
6	4"	\$4,075.23	\$4,401.25	\$4,075.31	\$325.94	8%

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-9 shows the proposed annual capital charges for FY 2026 based on the revenue neutral rate (**Table 4-7**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent for private fire customers.

Table 4-9: Proposed Annual Capital Charges After Adjustment (Private Fire)

Line	Fire Line Diameter	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate	Difference (\$)	Difference (%)
1	1"	\$3.83	\$4.14	\$3.32	\$0.82	25%
2	2"	\$23.69	\$25.59	\$20.58	\$5.01	24%
3	3"	\$68.79	\$74.30	\$59.78	\$14.52	24%
4	4"	\$146.59	\$158.32	\$127.41	\$30.91	24%
5	6"	\$425.81	\$459.88	\$370.10	\$89.78	24%
6	8"	\$907.41	\$980.01	\$788.70	\$191.31	24%
7	10"	\$1,631.83	\$1,762.38	\$1,418.34	\$344.04	24%

4.6 PROPOSED USAGE RATES

The usage rate calculations include the Supply, Base, Capacity, Conservation, Revenue Offset, and Water Reliability components, which are detailed in this section.

SUPPLY COST

Table 4-10 shows the calculation of unit cost by source of supply: groundwater from the Verdugo Basin and imported water from Foothill Municipal Water District (FMWD) and Glendale Water and Power (GWP). The demand by source (Line 2) is calculated from the percentage of each supply source used to meet demand (Line 1) multiplied by the total annual water use in kgal (**Table 3-12**). The total cost by source (Line 4) is calculated by multiplying the demand by source (Line 2) by the unit cost per kgal (Line 3). The demand by source and unit cost by source are based on engineering estimates and were provided by District staff.

The percentage of cost by source (Line 5) is calculated from dividing the total cost by source by the cost for each source (Line 4). The supply cost is calculated from the percentage of cost by source (Line 5) multiplied by the total supply cost component (**Table 3-20**, Line 11). Finally, the unit cost by source is calculated from dividing the total supply cost for each source (Line 6) by the total demand for each source (Line 2).

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-10: Water Unit Cost by Source of Supply

Line	Water Supply Costs	Verdugo Basin	GWP	FMWD	Total
1	Supply to Meet Demand	51%	4%	45%	100%
2	Demand by Source	511,299	40,102	451,146	1,002,546
3	Cost (\$/kgal)	\$0.95	\$1.51	\$6.13	
4	Cost by Source	\$483,462	\$60,667	\$2,765,578	\$3,309,707
5	% of Cost by Source	15%	2%	84%	100%
6	Supply Cost	\$407,617	\$51,149	\$2,331,714	\$2,790,479
7	Unit Cost by Source	\$0.80	\$1.28	\$5.17	\$2.78

Table 4-11 shows the supply unit cost by customer class and tier. The water demand by source (**Table 4-10**, Line 2) is divided between each customer class based on proportion of meter counts (**Table 3-9**). This allocation methodology assumes that all customer accounts will receive the same number of available units of water from each source.

For Single Family Residential customers, the cheapest source of supply (Verdugo Basin) is allocated to the lower tiers first. This follows the guidance set by Article X of the California Constitution, which prioritizes the most “beneficial use” of water, typically defined as indoor water usage for health and safety requirements. For Single Family Residential customers, Tier 1 includes local groundwater supply; Tier 2 is served by a mix of supply sources; and Tier 3 is served entirely by more expensive imported water from GWP and FMWD. Multi-Family/Commercial and Irrigation customers’ supply costs are based on a blended supply from each source. The Supply Unit cost for each customer class and tier is the weighted average of the three unit costs for each source.

Table 4-11: Water Supply Unit Cost by Customer Class

Line	Customer Class	Annual Use (kgal)	Verdugo Basin	GWP	FMWD	Total	Supply Unit Cost
1	Single Family	610,498	439,501	34,471	136,526	610,498	\$1.80
2	Tier 1	389,479	389,479	0	0	389,479	\$0.80
3	Tier 2	104,942	50,022	34,471	20,449	104,942	\$1.81
4	Tier 3	116,077	0	0	116,077	116,077	\$5.17
5	Multi-Family/Commercial	333,526	66,995	5,255	261,276	333,526	\$4.23
6	Irrigation	58,522	4,802	377	53,343	58,522	\$4.78
7	Total	1,002,546	511,299	40,102	451,146	1,002,546	

The District’s cost data for FMWD are based on best available estimates; if costs for FMWD are higher than the projections shown in this study, the District may pass-through the additional FMWD per unit water supply cost.

BASE COST

The base unit cost of \$3.89 per kgal is from **Table 3-18** and is charged to all customer classes and tiers equally.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

CAPACITY COST

Table 4-12 shows the combined Capacity unit cost by customer class and tier. The total Capacity costs are the sum of Max Day and Max Hour costs (**Table 3-20**). The Capacity unit cost is calculated by dividing the total Capacity costs by the annual usage in kgal for each customer class and tier.

Table 4-12: Water Capacity Unit Cost by Customer Class

Line	Customer Class	Annual Use (kgal)	Max Day Costs	Max Hour Costs	Total Cost	Capacity Unit Cost
1	Single Family					
2	Tier 1	389,479	\$150,656	\$83,524	\$234,180	\$0.60
3	Tier 2	104,942	\$478,726	\$42,225	\$520,951	\$4.96
4	Tier 3	116,077	\$529,521	\$46,705	\$576,226	\$4.96
5	Multi-Family/Commercial	333,526	\$93,477	\$69,925	\$163,402	\$0.49
6	Irrigation	58,522	\$45,894	\$13,597	\$59,490	\$1.02
7	Total	1,002,546	\$1,298,273	\$255,977	\$1,554,250	

CONSERVATION COST

Table 4-13 shows the calculation of Conservation unit costs by customer class and tier. Conservation costs for Single Family Residential customers are allocated entirely to Tier 3, which represents the usage tiers that the District's water conservation program targets. Tier 3 represents use above a Single Family customer's indoor and outdoor water budget, meaning that programs that encourage water conservation are targeted at these customers as compared to customers using water within Tiers 1 and 2. The Conservation costs for Multi-Family/Commercial and Irrigation customers are allocated to all usage. Conservation costs are from **Table 3-20** and are divided by the annual usage in each customer class and applicable usage tier.

Table 4-13: Water Conservation Unit Cost by Customer Class

Line	Customer Class	Annual Use (kgal)	Allocation to Conservation	Applied Use (kgal)	Conservation Costs	Conservation Unit Cost
1	Single Family					
2	Tier 1	389,479	0%	0	\$0	\$0.00
3	Tier 2	104,942	0%	0	\$0	\$0.00
4	Tier 3	116,077	100%	116,077	\$29,555	\$0.25
5	Multi-Family/Commercial	333,526	100%	333,526	\$16,146	\$0.05
6	Irrigation	58,522	100%	58,522	\$2,833	\$0.05
7	Total	1,002,546		508,125	\$48,534	

REVENUE OFFSETS

Table 4-14 shows the Revenue Offset by customer class and tier. Revenue offsets consist of rentals and cell tower revenue, which are not generated by any specific customer class for a direct water service that the District provides. The District has discretion to use these revenues

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

to offset the cost of water; all customer classes benefit from the Revenue Offsets equally, which are allocated based on usage in each customer class.

Tier 1 receives the full Revenue Offset and within both the Single Family Residential and Irrigation class. This allocation within the Single Family Residential and Irrigation classes is to lower costs of water for low water users, enhancing affordability of essential uses of water. Revenue Offsets for the Multi-Family/Commercial class are allocated to all usage.

Table 4-14: Water Revenue Offset by Customer Class

Line	Customer Class	Annual Use (kgal)	Allocation to Revenue Offsets	Applied Use (kgal)	Revenue Offsets	Revenue Offset Unit Cost
1	Single Family					
2	Tier 1	389,479	100%	389,479	(\$59,615)	(\$0.15)
3	Tier 2	104,942	0%	0	\$0	\$0.00
4	Tier 3	116,077	0%	0	\$0	\$0.00
5	Multi-Family/Commercial	333,526	100%	333,526	(\$32,569)	(\$0.10)
6	Irrigation	58,522	100%	58,522	(\$5,715)	(\$0.10)
7	Total	1,002,546		781,527	(\$97,899)	

WATER RELIABILITY

Table 4-15 shows the unit cost for the water reliability charge. The reserve funding target divided by annual usage in kgal (**Table 3-12**) derives the unit cost.

Table 4-15: Water Reliability Unit Cost

Line	Water Reliability Charge	Value
1	Water Reliability Reserve Funding	\$500,000
2	Annual Use (kgal)	1,002,546
3	Unit Cost	\$0.50

Table 4-16 shows the calculation of Reliability unit costs by customer class and tier. Reliability costs for Single Family Residential customers are allocated entirely to Tier 3, which represents the usage tiers that the reliability charge targets to account for the strain that higher usage puts on the system. Customers that use water in excess of their indoor and outdoor water budget would require the District to find new sources of supply to meet that excess demand. The Reliability costs for Multi-Family/Commercial and Irrigation customers are allocated to all usage. Reliability costs are from the annual usage for each class multiplied by the unit cost (**Table 4-15**, Line 3) and are divided by the annual usage in each customer class and applicable usage tier.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-16: Water Reliability Unit Cost by Customer Class

Line	Customer Class	Annual Use (kgal)	Allocation to Reliability	Applied Use (kgal)	Reliability Costs	Reliability Unit Cost
1	Single Family					
2	Tier 1	389,479	0%	0	\$0	\$0.00
3	Tier 2	104,942	0%	0	\$0	\$0.00
4	Tier 3	116,077	100%	116,077	\$304,474	\$2.62
5	Multi-Family/Commercial	333,526	100%	333,526	\$166,340	\$0.50
6	Irrigation	58,522	100%	58,522	\$29,187	\$0.50
7	Total	1,002,546		508,125	\$500,000	

REVENUE NEUTRAL RATES

Table 4-17 shows the revenue neutral usage rates for all classes and tiers, based on the Supply unit cost from **Table 4-11**, the Base unit cost from **Table 3-20**, the Capacity unit cost from **Table 4-12**, the Conservation unit cost from **Table 4-13**, Revenue Offset from **Table 4-14**, and the Reliability unit cost from **Table 4-16**. The revenue neutral rate represents the cost-of-service analysis for FY 2025 but does not include the proposed revenue adjustments for the first year of rates in FY 2026.

Table 4-17: Revenue Neutral Water Usage Rates

Line	Customer Class	Annual Use (kgal)	Supply Cost	Base Cost	Capacity Cost	Conservation Cost	Revenue Offsets	Water Reliability	Revenue Neutral Rate
1	Single Family								
2	Tier 1	389,479	\$0.80	\$3.89	\$0.60	\$0.00	(\$0.15)	\$0.00	\$5.14
3	Tier 2	104,942	\$1.81	\$3.89	\$4.96	\$0.00	\$0.00	\$0.00	\$10.66
4	Tier 3	116,077	\$5.17	\$3.89	\$4.96	\$0.25	\$0.00	\$2.62	\$16.90
5	Multi-Family/Commercial	333,526	\$4.23	\$3.89	\$0.49	\$0.05	(\$0.10)	\$0.50	\$9.06
6	Irrigation	58,522	\$4.78	\$3.89	\$1.02	\$0.05	(\$0.10)	\$0.50	\$10.14

PROPOSED RATES WITH ADJUSTMENT

Table 4-18 shows the proposed usage rates for FY 2026 based on the revenue neutral rate (**Table 4-17**) adjusted by the proposed revenue adjustment of 8% in the first year and rounded up to the nearest cent.

Table 4-18: Proposed Water Usage Rates After Adjustment

Line	Customer Class	Revenue Neutral Rate	Proposed Rate (w/ 8% Adj.)	Current Rate	Difference (\$)	Difference (%)
1	Single Family					
2	Tier 1	\$5.14	\$5.56	\$5.96	(\$0.40)	-7%
3	Tier 2	\$10.66	\$11.52	\$11.09	\$0.43	4%
4	Tier 3	\$16.90	\$18.26	\$15.63	\$2.63	17%
5	Multi-Family/Commercial	\$9.06	\$9.79	\$9.45	\$0.34	4%
6	Irrigation					
7	Tier 1	\$10.14	\$10.96	\$6.30	\$4.66	74%
8	Tier 2	\$10.14	\$10.96	\$11.88	(\$0.92)	-8%

4.7 PROPOSED WATER RATE SCHEDULE

PROPOSED REVENUE ADJUSTMENTS

Table 4-19 shows the proposed revenue adjustments based on the District's financial plan, which was provided by District staff. The proposed revenue adjustments allow the District to meet the financial obligations of the water system throughout the study period.

Table 4-19: Proposed Water Revenue Adjustments

Line	Fiscal Year	Revenue Adjustments
1	FY 2026	8.0%
2	FY 2027	8.0%
3	FY 2028	8.0%

PROPOSED WATER RATE SCHEDULE

The proposed water rate schedules in this section are based on the proposed rate structure and methodology changes, the water budget analysis, the updated cost-of-service analysis, and the proposed revenue adjustments in the three-year period. The rate schedule shows the proposed water rates to be implemented in July 2025 through July 2027. The proposed water rates are based on available estimates for FMWD water supply costs; if costs for FMWD are higher than the projections shown in this study, the District may pass-through the additional FMWD per unit water supply cost.

Table 4-20, Table 4-21, Table 4-22, Table 4-23, and Table 4-24 show the proposed monthly meter charges, monthly private fire protection charges, usage rates, annual capital charges for potable water customers, and annual capital charges for private fire customers, respectively.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-20: Proposed Water Monthly Meter Charges

Line	Monthly Meter Charges	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	3/4"	\$44.53	\$48.10	\$51.95
2	1"	\$70.58	\$76.23	\$82.33
3	1 1/2"	\$135.70	\$146.56	\$158.29
4	2"	\$213.85	\$230.96	\$249.44
5	3"	\$461.32	\$498.23	\$538.09
6	4"	\$826.02	\$892.10	\$963.47

Table 4-21: Proposed Water Monthly Private Fire Protection Charges

Line	Monthly Private Fire Protection Charges	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	1"	\$6.31	\$6.81	\$7.36
2	2"	\$10.72	\$11.58	\$12.51
3	3"	\$20.74	\$22.40	\$24.20
4	4"	\$38.03	\$41.08	\$44.37
5	6"	\$100.08	\$108.09	\$116.74
6	8"	\$207.11	\$223.68	\$241.58
7	10"	\$368.10	\$397.55	\$429.36

Table 4-22: Proposed Water Usage Rates

Line	Usage Rates (\$/kgal)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	Single Family			
2	Tier 1 (indoor water budget)	\$5.56	\$6.01	\$6.50
3	Tier 2 (outdoor water budget)	\$11.52	\$12.45	\$13.45
4	Tier 3 (above water budget)	\$18.26	\$19.73	\$21.31
5	Multi-Family/Commercial/Institutional	\$9.79	\$10.58	\$11.43
6	Irrigation	\$10.96	\$11.84	\$12.79

Table 4-23: Proposed Annual Capital Charges (Potable Water)

Line	Annual Capital Charges (Potable Water)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	3/4"	\$209.59	\$226.36	\$244.47
2	1"	\$349.32	\$377.27	\$407.46
3	1 1/2"	\$698.62	\$754.51	\$814.88
4	2"	\$1,117.78	\$1,207.21	\$1,303.79
5	3"	\$2,445.15	\$2,640.77	\$2,852.04
6	4"	\$4,401.25	\$4,753.35	\$5,133.62

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 4-24: Proposed Annual Capital Charges (Private Fire)

Line	Annual Capital Charges (Private Fire)	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	1"	\$4.14	\$4.48	\$4.84
2	2"	\$25.59	\$27.64	\$29.86
3	3"	\$74.30	\$80.25	\$86.67
4	4"	\$158.32	\$170.99	\$184.67
5	6"	\$459.88	\$496.68	\$536.42
6	8"	\$980.01	\$1,058.42	\$1,143.10
7	10"	\$1,762.38	\$1,903.38	\$2,055.66

CUSTOMER IMPACTS

Table 4-25 shows the proposed impacts for a Residential customer without private fire with a 3/4" meter (the most common meter size within this class) at various levels of monthly usage. For the median Residential customer that uses 6 kgal of water per month, the monthly impact will be \$7.21 or 8%, which reflects the impact of the water budget analysis, the cost-of-service analysis, the changes in rate structure methodology, and the 8% revenue adjustment applied to FY 2026.

Table 4-25: Proposed Water Single Family Residential Customer Impacts

Line	Residential Customer Impacts	Monthly Use (kgal)	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
1	10th Percentile	2	\$62.15	\$73.12	\$10.96	18%
2	25th Percentile	4	\$74.07	\$84.24	\$10.16	14%
3	50th Percentile (Median)	6	\$91.12	\$98.34	\$7.21	8%
4	75th Percentile	10	\$135.48	\$147.79	\$12.30	9%
5	90th Percentile	15	\$200.01	\$239.09	\$39.07	20%

5. WASTEWATER COST-OF-SERVICE AND RATES

5.1 COST-OF-SERVICE METHODOLOGY

A cost-of-service analysis was conducted to allocate the proposed FY 2025 revenue requirement to customers in proportion to use of and burden on the District’s wastewater system. Note that although the study period spans three years, the cost-of-service analysis is limited to a single representative year referred to as the “test year.” The test year in this study is FY 2025. The cost-of-service analysis is “revenue neutral,” meaning that the resulting cost-of-service based rates collect the same amount of revenue as the District expects to collect in FY 2025. The revenue neutral unit costs determine revenue neutral rates, which are then adjusted based on the proposed financial plan increases to arrive at the proposed wastewater rates for three years. All values presented in this section pertain to FY 2025 and are revenue neutral unless stated otherwise.

5.2 REVENUE REQUIREMENT

Table 5-1 shows the proposed FY 2025 revenue requirement for the wastewater system based on financial data provided by District staff¹¹. The District did not have Capital costs in FY 2025; the entire revenue requirement is for Operating costs. The revenue requirement represents the amount of wastewater rate revenue that the District expects to recover in FY 2025.

Table 5-1: FY 2025 Revenue Requirement

Line	FY 2025 Revenue Requirement	Operating
1	Operating Requirement	\$3,900,000
2	Total - Revenue Requirement	\$3,900,000

5.3 ESTIMATED WASTEWATER FLOW

Table 5-2 shows estimated school wastewater flow by school type. Estimated indoor use is calculated by multiplying the ADA for each school type by estimated water use per student in gallons per day to determine the estimated amount of water each student uses per day. Then the estimated water use per day is multiplied by 180 school days in one year and converted to kgal to arrive at the estimated annual indoor use for each school type.

¹¹ District staff’s financial plan model for the wastewater utility.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 5-2: Estimated School Wastewater Flow by School Type

Line	Schools	Students	100 ADA	Water Use per Student (gpd)	Estimated Indoor Use (kgal)
1	Elementary	1,766	18	5	1,589
2	Middle	1,236	12	10	2,225
3	High	2,533	25	15	6,839
4	Total	5,535	55		10,653

Table 5-3 shows the estimated wastewater flow by customer class. Estimated indoor use is calculated based on assumptions formed from discussions with District staff and the number of accounts for Single Family, Commercial, and School customers, and the number of units for Multi-Family customers.

It is assumed that for Single Family Residential, the typical household size is 4 and the average indoor water use is 47 gallons per capital per gpcd, which are the same assumptions used for to estimate the indoor water budget for a typical Single Family customer. If a Single Family customer adjusts their household size to increase the indoor water budget, then the wastewater rate will increase according to the new household size. The Single Family wastewater rate will reflect the same indoor budget as the Single Family water rate (Tier 1). The estimated annual indoor water use for Single Family customers is calculated by multiplying the total number of bills for each account per year by the estimated total water use per account for one billing period in kgal and rounded up to the nearest whole number.

The estimated indoor water use for Multi-Family customers is calculated using the same approach, however estimated total water use per account for one billing period is adjusted to reflect the portion of Single Family Residential indoor use that would apply to Multi-Family. Based on the District's customer data, the winter water use of one Multi-Family dwelling unit is approximately 64% of the winter water use of a Single Family Residential customer.

Estimated indoor use for Commercial is based on customer winter water use data provided by District staff, and indoor use for Schools is in **Table 5-2** (Line 4). To determine the estimated wastewater flows, estimated indoor use for each customer class is multiplied by each customer class's return factor. The percent of flow reflects the estimated wastewater flow for each customer class relative to total estimated wastewater flow (Line 5).

Table 5-3: Estimated Wastewater Flow by Customer Class

Line	Customer Class	Accounts/ Units	Estimated Indoor Use (kgal)	Return Factor ¹²	Estimated Wastewater Flows (kgal)	Percent of Flow
1	Single Family	5,154	340,164 ¹³	100%	340,164	71%
2	Multi-Family	2,525	106,050 ¹⁴	100%	106,050	22%
3	Commercial	178	22,012	100%	22,012	5%
4	School	13	10,653	100%	10,653	2%
5	Total	7,870	478,879		478,879	

5.4 COST-OF-SERVICE BY CUSTOMER CLASS

To determine the cost of service by customer class, the percent of flow values for each customer class (**Table 5-3**) are multiplied by the total revenue requirement (**Table 5-1**), shown below in **Table 5-4**.

Table 5-4: Cost-of-Service by Customer Class

Line	Customer Class	Percent of Flow	Revenue Requirement
1	Single Family	71%	\$2,770,301
2	Multi-Family	22%	\$863,673
3	Commercial	5%	\$179,266
4	Schools	2%	\$86,761
5	Total	100%	\$3,900,000

5.5 PROPOSED CHANGES TO RATE STRUCTURE

WRE worked closely with the District's Board of Directors and staff to determine the most appropriate wastewater rate structure that meets the District's needs. The following changes were made to the wastewater rate structure:

- Residential customers:** Proposed Residential wastewater charges include a monthly fixed charge based on equivalent dwelling units (EDU) and do not include a usage rate. WRE recommends this change because it reflects proportional allocation of cost, while simplifying the rate structure and enhancing revenue stability. Single Family Residential customers are charged based on a default household size of 4 people; any adjustments to household size will result in a change to the indoor water budget and wastewater rate.

¹² A return factor of 100% assumes that all indoor water use is returned to the wastewater system.

¹³ 4 (Average Single Family Household Size) x 47 gpcd (Average Single Family Water Use) x 60 (Number of Days in one Billing Period) x 1 kgal / 1,000 gallons x 5,154 (Number of Accounts) x 6 (Number of Bills Annually)

¹⁴ 4 (Average Single Family Household Size) x 47 gpcd (Average Single Family Water Use) x 64% (Multi Family Indoor Use Divided by Single Family Indoor Use) x 1 kgal / 1,000 gallons x 2,525 (Number of Units) x 6 (Number of Bills Annually)

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

- **Commercial customers:** Proposed Commercial wastewater charges include a monthly fixed charge with an allowance of 6 kgal of water use and a usage rate for all units of usage over 6 kgal. The water use allowance of 6 kgal is based on the estimated Residential water use (equal to indoor water use allotment determined as part of the water budget analysis). WRE recommends this change because it reflects proportional allocation of cost, while simplifying the rate structure.

5.6 RATE DESIGN METHODOLOGY

A three-year proposed wastewater rate schedule was developed based on the results of the proposed revenue adjustments, rate structure methodology changes, and cost-of-service analysis. The key steps in developing the proposed rate schedule are outlined below:

- **Rate structure evaluation:** The existing rate structure is evaluated, and any proposed changes are identified. Proposed rate structure changes are typically intended to address specific policy objectives or to improve legal defensibility.
- **Test year rate development:** Rates are calculated for the proposed rate structure for the cost-of-service test year (FY 2025). Rate calculations directly incorporate the unit costs developed in the cost-of-service analysis. The test year rates are revenue neutral, then are increased based on the proposed financial plan revenue adjustments.
- **Three-year rate schedule development:** Proposed rates for the full three-year period are calculated by increasing the cost-of-service rates by the proposed annual revenue adjustment percentages.

5.7 WASTEWATER CHARGES

Table 5-5 shows the revenue neutral wastewater rate calculations based on the cost-of-service analysis above. The total revenue requirement for each customer class (**Table 5-4**) is divided by the number of accounts/units (**Table 5-2** and **Table 5-3**) to determine the annual rate. The annual rate is then divided by 12 months to determine the revenue neutral rate per bill.

Table 5-5: Revenue Neutral Wastewater Charges

Line	Customer Class	Revenue Requirement	Units of Service	Units	Revenue Neutral Rate
1	Residential				
2	Single Family	\$2,756,899	5,154	Accounts	\$44.58
3	Multi-Family	\$900,423	2,525	Accounts	\$29.72
4	Non-Residential				
5	Commercial	\$163,532	22,012	kgal	\$7.43
6	Schools				
7	Elementary	\$11,808	18	100 ADA	\$55.72
8	Middle	\$16,529	12	100 ADA	\$111.44
9	High	\$50,809	25	100 ADA	\$167.16

5.8 PROPOSED WASTEWATER RATE SCHEDULE

PROPOSED REVENUE ADJUSTMENTS

Table 5-6 shows the proposed revenue adjustments based on the District's financial plan, which was provided by District staff. The proposed revenue adjustments allow the District to meet the financial obligations of the wastewater system throughout the study period.

Table 5-6: Proposed Wastewater Revenue Adjustments

Line	Fiscal Year	Revenue Adjustments
1	FY 2026	15.0%
2	FY 2027	15.0%
3	FY 2028	15.0%

PROPOSED WASTEWATER RATE SCHEDULE

The proposed wastewater rate schedules in this section are based on the updated cost-of-service analysis, rate structure methodology changes, and proposed revenue adjustments in the three-year period. The rate schedule shows the proposed wastewater rates to be implemented in July 2025 through July 2027. **Table 5-7** shows the proposed wastewater rates for all customers.

Table 5-7: Proposed Wastewater Rates

Line	Wastewater Rates	Effective 7/1/2025	Effective 7/1/2026	Effective 7/1/2027
1	Residential			
2	Single Family Monthly Fixed Charge	\$51.28	\$58.96	\$67.80
3	Single Family Per Person Charge	\$12.82	\$14.74	\$16.95
4	Multi-Family Monthly Fixed Charge	\$34.18	\$39.31	\$45.21
5	Commercial			
6	Commercial Monthly Fixed Charge	\$51.28	\$58.96	\$67.80
7	Commercial Quantity Charge (\$/kgal over 6 kgal)	\$8.55	\$9.84	\$11.32
8	Schools			
9	Elementary Schools (\$/100 ADA per month)	\$64.08	\$73.70	\$84.75
10	Middle Schools (\$/100 ADA per month)	\$128.16	\$147.39	\$169.50
11	High Schools (\$/100 ADA per month)	\$192.24	\$221.08	\$254.24

CUSTOMER IMPACTS

Table 5-8 shows the proposed impacts for Single Family Residential customers and Commercial customers at various levels of monthly usage.

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 5-8: Proposed Wastewater Single Family and Commercial Customer Impacts

Line	Customer Impacts	Current Bill	Proposed Bill	Difference (\$)	Difference (%)
1	Single Family, 4 kgal	\$39.30	\$51.28	\$11.98	30%
2	Single Family, 6 kgal	\$44.30	\$51.28	\$6.98	16%
3	Single Family, 10 kgal (current cap)	\$54.30	\$51.28	(\$3.03)	-6%
4	Commercial, 7.5 kgal (current cap)	\$65.26	\$64.11	(\$1.15)	-2%
5	Commercial, 13 kgal	\$65.26	\$111.13	\$45.87	70%

6. APPENDICES

6.1 COST-OF-SERVICE ANALYSIS APPENDICES

Table 6-1: Operating Expenses (Detail)

Line	Operating Expenses (Detailed)	FY 2025	Cost Function
1	Director Fees	\$24,000	General
2	Officer Salaries	\$179,733	General
3	Administrative Service - Labor	\$317,809	General
4	Administrative Service - OT	\$7,114	General
5	Administrative Service - Labor	\$307,655	Customer
6	Administrative Service - OT	\$6,886	Customer
7	Engineering Labor	\$380,276	General
8	Engineering Labor OT	\$14,000	General
9	System Operations	\$498,033	General
10	System Operations OT	\$18,540	General
11	Maintenance Labor	\$649,221	General
12	Maintenance Labor OT	\$64,922	General
13	Standby Pay	\$102,389	General
14	Automobile Allowance	\$10,800	General
15	Phone Allowance	\$1,663	General
16	Sick Leave/Vacation	\$287,251	General
17	Taxes-Payroll	\$308,109	General
18	Employer Portion of PERS	\$532,285	General
19	Workers' Compensation Ins	\$96,422	General
20	Health Dental Vision	\$384,137	General
21	Retiree Health Care Expense	\$144,792	General
22	Life and Disability Insurance	\$12,250	General
23	Self Insurance	\$18,220	General
24	Wellness Program	\$7,200	General
25	Taxes-Property	\$16,500	Treatment
26	Operator Certifications-Educ	\$12,310	Treatment

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Operating Expenses (Detailed)	FY 2025	Cost Function
27	Safety & Security	\$28,575	Treatment
28	Uniforms	\$14,700	Treatment
29	Permit & Assessment Fees	\$3,750	Treatment
30	Tools and Eq Maintenance	\$40,875	Treatment
31	Nitrate Plant	\$30,000	Treatment
32	Inventory Disposal	\$0	Treatment
33	Telemetry & Signal System	\$93,600	Treatment
34	SCADA Hardware	\$0	Treatment
35	SCADA Software	\$0	Treatment
36	SCADA Phone Lines	\$0	Treatment
37	Lab & Sampling Expense	\$197,333	Treatment
38	Water Treatment Expense	\$212,000	Treatment
39	Non-Lab & Sampling	\$17,500	Treatment
40	Inventory Shrinkage/Overage	\$0	Treatment
41	Emergency Operations/Repairs	\$29,744	Treatment
42	Backflow Expense	\$750	Distribution
43	Pipelines - Maintenance	\$67,500	Distribution
44	Pipelines - Paving	\$0	Distribution
45	Fire Hydrant Repair/Replace	\$46,500	Fire
46	Pipelines - Leak Detect/Repair	\$34,000	Distribution
47	Pipelines-Trench Plate Rentals	\$0	Distribution
48	Pipelines - Valves	\$76,000	Distribution
49	Reservoir Maintenance	\$140,000	Distribution
50	Reservoir Landscape	\$37,000	Distribution
51	Meter Maintenance	\$26,000	Meter
52	Meters - Paving	\$207,000	Meter
53	Meter Repair/Replace/Upgrade	\$10,500	Meter
54	Lateral Leaks and Repairs	\$62,250	Meter
55	Meters - Trench Plate Rentals	\$0	Meter
56	D-Job Meters/Hydrants	\$200,000	Meter
57	Well Site - Maintenance	\$55,000	Distribution
58	Well Site - Landscape	\$12,500	Distribution
59	Well Site - Lease Payment	\$300	Distribution

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Operating Expenses (Detailed)	FY 2025	Cost Function
60	Land Lease Cost Expense Well16	\$19,400	Distribution
61	Booster Pumps - Maintenance	\$101,000	Distribution
62	Emergency Power Generators	\$25,500	Distribution
63	Auto/Truck Maintenance	\$44,625	Distribution
64	Auto/Truck Maintenance-Gas	\$36,000	Distribution
65	Auto/Truck Maintenance-Diesel	\$33,000	Distribution
66	GL, Property, Fidelity Ins	\$105,000	General
67	Accounting	\$28,000	General
68	Legal	\$210,000	General
69	Administrative Consultants	\$807,435	General
70	Computers & Network	\$5,895	General
71	Computer Software	\$233,807	General
72	Enterprise Voice Communications	\$60,075	General
73	Data Communications - Fiber	\$0	General
74	Wireless Voice & Data	\$0	General
75	Printing Postage Stationery - Customer	\$90,000	Customer
76	Printing Postage Stationery - General	\$10,000	General
77	Water System Fees	\$65,000	General
78	Engineering Expense	\$3,780	General
79	Water Conservation Expense	\$7,500	Conservation
80	Water Conservation - Outreach (Pipeline)	\$0	Conservation
81	Water Conservation Rebates	\$3,750	Conservation
82	Community Outreach	\$30,000	Conservation
83	Conferences & Seminars	\$47,124	General
84	Misc Administration	\$43,650	General
85	Memberships/Subscriptions	\$34,438	General
86	Bank Charges	\$45,000	Customer
87	Interest Expense - Notes	\$29,000	General
88	Rental Expenses - PA House	\$1,500	General
89	Rental Expenses - Sycamore	\$1,500	General
90	Rental Expenses - Mills	\$4,500	General
91	Election Expense	\$67,500	General

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Operating Expenses (Detailed)	FY 2025	Cost Function
92	Interns	\$24,150	General
93	Building Maintenance	\$81,750	General
94	Landscaping Expense	\$24,250	General
95	Office Supplies & Misc Expense	\$14,725	General
96	Utilities	\$38,650	General
97	Training	\$17,625	General
98	Misc Expense - COVID-19	\$1,500	General
99	Tuition Reimbursment	\$9,425	General
100	Purchased Water - FMWD	\$3,805,000	Supply
101	Purchased Water - GWP	\$68,000	Supply
102	Power	\$950,000	Pumping
103	Lateral Maintenance	\$97,250	Distribution
104	Inventory Shrinkage/Overage	\$2,000	General
105	Total	\$13,374,198	

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 6-2: Capital Assets (Detail)

Line	Capital Assets (Detailed)	Asset ID	Category	Acquisition Date	Useful Life	Depreciate?	Original Cost (OC)	RC Less Depreciation (RCLD)
1	1953-77 LAND	CVWD000180	Land	1/1/1953		FALSE	\$156,910	\$3,485,233
2	WELL SITE ACQUISITION	CVWD001610	Land	3/1/2001		FALSE	\$3,665	\$7,700
3	WELL SITE PROPERTY ACQUISITIONS E687	CVWD001720	Land	12/1/2001		FALSE	\$3,695	\$7,762
4	LOT AT ENCINAL/PENN	CVWD002080	Land	11/30/2002		FALSE	\$8,933	\$18,209
5	3240 MILLS AVE., LA CRESCENTA	CVWD003140	Land	11/3/2005		FALSE	\$489,247	\$875,664
6	ESCROW FOR 3935 PENNSYLVANIA AVE	CVWD003750	Land	6/25/2007		FALSE	\$750	\$1,255
7	3935 PENNSYLVANIA PROPERTY	CVWD004200	Land	7/31/2007		FALSE	\$292,597	\$489,510
8	2857 Sycamore Avenue	CVWD005090	Land	10/1/2011		FALSE	\$202,729	\$297,880
9	CHLORINE ANALYZER	CVWD000276	Water Treatment	3/12/1996	5	TRUE	\$5,572	\$0
10	PUMP / HYPOCHLORINATOR	CVWD001050	Water Treatment	10/20/1999	5	TRUE	\$3,951	\$0
11	CHLORINE INJECTION PUMP	CVWD002070	Water Treatment	7/16/2002	5	TRUE	\$2,062	\$0
12	E733 WILLIAMS RESERVOIR	CVWD002430	Water Treatment	12/15/2003	5	TRUE	\$12,733	\$0
13	GOULDS PUMP BOOSTER MODEL 45HB15035 FROM MULTI TECH PO #9092	CVWD002860	Water Treatment	7/21/2005	5	TRUE	\$1,759	\$0
14	E-812 SODIUM HYPOCHLORITE CONVERSION	CVWD004680	Water Treatment	6/30/2010	5	TRUE	\$39,720	\$0
15	E-828 FIVE CHLORINE ANALYZERS	CVWD004720	Water Treatment	6/30/2010	5	TRUE	\$36,355	\$0
16	E-857 pH ADJ STUDY FOR COPPER	CVWD004770	Water Treatment	6/30/2010	5	TRUE	\$24,694	\$0
17	C-790 GAC Treatment at Mills	CVWD004930	Water Treatment	5/31/2011	5	TRUE	\$147,607	\$0
18	C-909 Nitrate Analyzers from Hach	CVWD005440	Water Treatment	3/31/2013	5	TRUE	\$62,744	\$0
19	C-930 Chlorine Analyzers	CVWD005530	Water Treatment	9/1/2013	5	TRUE	\$32,497	\$0
20	E-733 Chloramination Station at Williams Reservoir	CVWD190101	Water Treatment	12/31/2018	5	TRUE	\$942,577	\$0
21	1998-1999 PUMP MACHINE	CVWD000870	Pump Machinery	1/1/1999	15	TRUE	\$174,964	\$0
22	2000-2001 PUMP MACHINERY	CVWD001400	Pump Machinery	1/1/2001	15	TRUE	\$10,262	\$0
23	2001 - 2002 PUMP MACHINERY BSTR# 22	CVWD001740	Pump Machinery	1/1/2002	15	TRUE	\$32,736	\$0
24	GENERATOR TRANS SWITCH	CVWD001970	Pump Machinery	7/31/2002	15	TRUE	\$1,952	\$0
25	2002-2003 PUMP MACHINERY	CVWD002100	Pump Machinery	1/1/2003	15	TRUE	\$41,256	\$0
26	2003-2004 PUMP MACHINERY	CVWD002450	Pump Machinery	1/1/2004	15	TRUE	\$58,518	\$0
27	POWER POLE/PANELS SHIELDS RESERVOIR	CVWD002490	Pump Machinery	7/31/2004	15	TRUE	\$5,033	\$0
28	REPLACEMENT OF MILLS BOOSTER PUMP B	CVWD002710	Pump Machinery	6/30/2005	15	TRUE	\$18,372	\$0
29	REPLACEMENT OF OAK CREEK BOOSTER PUMP B	CVWD002720	Pump Machinery	6/30/2005	15	TRUE	\$10,429	\$0
30	2005-2006 PUMP MACHINERY	CVWD003400	Pump Machinery	1/1/2006	15	TRUE	\$43,536	\$0
31	2006-2007 PUMP MACHINERY	CVWD003770	Pump Machinery	1/1/2007	15	TRUE	\$21,455	\$0
32	E-794 PIPE MANIFOLD	CVWD004340	Pump Machinery	5/31/2009	15	TRUE	\$19,269	\$0
33	E-799 BOOSTER #17 PASCHALL	CVWD004350	Pump Machinery	5/31/2009	15	TRUE	\$30,930	\$0
34	E-800 BOOSTER #23 ROSEMONT	CVWD004360	Pump Machinery	5/31/2009	15	TRUE	\$50,961	\$0
35	E-834 BOOSTER A REHAB OCEAN VIEW	CVWD004430	Pump Machinery	5/31/2009	15	TRUE	\$26,299	\$0
36	E-835 BOOSTER C REHAB	CVWD004440	Pump Machinery	5/31/2009	15	TRUE	\$30,533	\$0
37	E-841 PASCHALL BOOSTER TRANSFORMER	CVWD004480	Pump Machinery	5/31/2009	15	TRUE	\$6,639	\$0
38	E-860 Replace a Section of Mills Plant Booster Discharge	CVWD004550	Pump Machinery	7/31/2009	15	TRUE	\$12,136	\$0
39	E-824 UPGRADE PRESSURE STATION	CVWD004700	Pump Machinery	6/30/2010	15	TRUE	\$14,103	\$1,424
40	E-849 EAGLE CANYON MANIFOLD	CVWD004750	Pump Machinery	6/30/2010	15	TRUE	\$26,592	\$2,685
41	E-853 ENCINAL A PUMP AND MOTOR	CVWD004760	Pump Machinery	6/30/2010	15	TRUE	\$16,435	\$1,659
42	E-787 MCC Eagle Canyon	CVWD004960	Pump Machinery	5/31/2011	15	TRUE	\$260,696	\$51,074
43	E-840R Eagle Canyon Boosters A/B	CVWD004990	Pump Machinery	5/31/2011	15	TRUE	\$21,490	\$4,210
44	E-862 Glenwood Booster Station Improvements	CVWD005000	Pump Machinery	5/31/2011	15	TRUE	\$30,193	\$5,915
45	E-881 Repair Mills Booster A	CVWD005030	Pump Machinery	5/31/2011	15	TRUE	\$27,876	\$5,461
46	E-884 Ordunio A&B Booster Pumps	CVWD005050	Pump Machinery	5/31/2011	15	TRUE	\$43,903	\$8,601
47	E-887 Oak Creek Booster D	CVWD005060	Pump Machinery	5/31/2011	15	TRUE	\$26,252	\$5,143

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Capital Assets (Detailed)	Asset ID	Category	Acquisition Date	Useful Life	Depreciate?	Original Cost (OC)	RC Less Depreciation (RCLD)
48	E-851 Arc Flash Study	CVWD005210	Pump Machinery	5/31/2012	15	TRUE	\$6,845	\$1,960
49	E-898 Paschall Booster Station	CVWD005280	Pump Machinery	5/31/2012	15	TRUE	\$34,058	\$9,753
50	E-913 Rosemont Booster 23	CVWD005390	Pump Machinery	2/28/2013	15	TRUE	\$37,138	\$13,824
51	E-931 Motor Control Station at Oak Creek Reservoir	CVWD005840	Pump Machinery	6/1/2016	15	TRUE	\$482,872	\$290,492
52	E-971 Markridge Booster 12 Rehab	CVWD180102	Pump Machinery	5/1/2018	15	TRUE	\$33,086	\$23,917
53	E-990 Emergency Replacement of Paschall Booster B	CVWD180103	Pump Machinery	5/1/2018	15	TRUE	\$16,587	\$11,990
54	E-992 Encinal Booster B Replacement	CVWD190105	Pump Machinery	11/30/2018	15	TRUE	\$36,060	\$26,066
55	E-1013 Pump and Motor 32 & 33	CVWD210103	Pump Machinery	1/1/2021	15	TRUE	\$90,335	\$79,380
56	1953-54 WELLS	CVWD000135	Wells & Tunnels	1/1/1954	40	TRUE	\$90,549	\$0
57	1954-55 WELLS	CVWD000136	Wells & Tunnels	1/1/1955	40	TRUE	\$43,950	\$0
58	1992-93 WELLS	CVWD000231	Wells & Tunnels	9/30/1992	40	TRUE	\$19,055	\$10,188
59	1994-95 WELLS	CVWD000257	Wells & Tunnels	2/28/1995	40	TRUE	\$9,470	\$6,344
60	1995-96 WELLS	CVWD000280	Wells & Tunnels	3/31/1996	40	TRUE	\$99,905	\$71,073
61	1996-1997 WELLS	CVWD000760	Wells & Tunnels	1/1/1997	40	TRUE	\$107,855	\$80,184
62	FENCING AT WELL #14	CVWD000890	Wells & Tunnels	8/31/1998	40	TRUE	\$1,695	\$1,336
63	1999-2000 WELLS	CVWD001150	Wells & Tunnels	1/1/2000	40	TRUE	\$59,314	\$50,826
64	2000-2001 WELLS INCLUDES # 15 & # 17	CVWD001420	Wells & Tunnels	1/1/2001	40	TRUE	\$361,073	\$322,419
65	VERTICAL TURBINE PUMP WELL# 7	CVWD001650	Wells & Tunnels	2/16/2001	40	TRUE	\$15,768	\$14,080
66	2001 - 2002 WELLS DRILLED #15,17, REHAB 8,10,11	CVWD001760	Wells & Tunnels	1/1/2002	40	TRUE	\$649,420	\$595,698
67	2002-2003 WELLS	CVWD002110	Wells & Tunnels	1/1/2003	40	TRUE	\$287,276	\$271,669
68	2003-2004 WELLS	CVWD002460	Wells & Tunnels	1/1/2004	40	TRUE	\$52,118	\$48,811
69	2004-2005 WELLS	CVWD002770	Wells & Tunnels	1/1/2005	40	TRUE	\$57,356	\$53,895
70	2003-2005 WELLS AND TUNNELS LABOR	CVWD002800	Wells & Tunnels	7/1/2004	40	TRUE	\$45,621	\$42,726
71	ELECTRICAL CONNECTION WELL #14	CVWD003230	Wells & Tunnels	2/16/2006	40	TRUE	\$3,425	\$3,239
72	ELECTRICAL CONNECTION-GLENWOOD PLANT	CVWD003250	Wells & Tunnels	2/16/2006	40	TRUE	\$2,320	\$2,194
73	2005-2006 WELLS AND TUNNELS	CVWD003420	Wells & Tunnels	1/1/2006	40	TRUE	\$157,196	\$148,654
74	2006-2007 WELLS	CVWD003800	Wells & Tunnels	1/1/2007	40	TRUE	\$22,774	\$21,908
75	GALVANIZE CHAIN LINK FENCE AROUND WELL #9	CVWD003980	Wells & Tunnels	10/1/2007	40	TRUE	\$2,800	\$2,694
76	E-773 WELL #17 REHABILITATION	CVWD004060	Wells & Tunnels	5/31/2008	40	TRUE	\$622	\$598
77	E-780 WELL #15 REHABILITATION	CVWD004070	Wells & Tunnels	5/31/2008	40	TRUE	\$23,496	\$22,608
78	E-820 WELL #12 REHAB	CVWD004400	Wells & Tunnels	5/31/2009	40	TRUE	\$55,373	\$53,818
79	E-821 WELL #14 REHAB	CVWD004410	Wells & Tunnels	5/31/2009	40	TRUE	\$44,498	\$43,249
80	E-850 Security Fency - Pennsylvania & Encinal Property	CVWD004530	Wells & Tunnels	7/31/2009	40	TRUE	\$1,891	\$1,838
81	E-772 WELL #2 REHABILITATION	CVWD004660	Wells & Tunnels	6/30/2010	40	TRUE	\$88,693	\$87,317
82	E-819 WELL #9 REHABILITATION	CVWD004690	Wells & Tunnels	6/30/2010	40	TRUE	\$29,535	\$29,077
83	E-865 PRESSURE TRANSDUCERS	CVWD004790	Wells & Tunnels	6/30/2010	40	TRUE	\$7,951	\$7,828
84	C-781B MTBE Monitoring Well	CVWD004920	Wells & Tunnels	5/31/2011	40	TRUE	\$61,178	\$60,677
85	E-868 Well #9 Rehabilitation	CVWD005010	Wells & Tunnels	5/31/2011	40	TRUE	\$55,434	\$54,980
86	E-883 Well 11 Pump Repair Rehabilitation	CVWD005040	Wells & Tunnels	5/31/2011	40	TRUE	\$95,950	\$95,165
87	E-890 Well #14 Rehabilitation	CVWD005130	Wells & Tunnels	3/31/2012	40	TRUE	\$52,026	\$52,143
88	E-894 Well 10 Rehab Fiscal 2012	CVWD005270	Wells & Tunnels	5/31/2012	40	TRUE	\$75,979	\$76,150
89	E-908 Well #14 Rehabilitation	CVWD005370	Wells & Tunnels	2/28/2013	40	TRUE	\$34,375	\$34,790
90	E-912 Well #12 Rehabilitation	CVWD005380	Wells & Tunnels	2/28/2013	40	TRUE	\$65,514	\$66,303
91	E-932 Well 1 Rehabilitation FY 13/14	CVWD005640	Wells & Tunnels	6/30/2014	40	TRUE	\$59,885	\$61,041
92	E-934 Wells 5, 8, 9, 11, and 12 Rehabilitation	CVWD005700	Wells & Tunnels	5/1/2015	40	TRUE	\$339,597	\$349,526
93	E-934 Best Drilling - Wells	CVWD005830	Wells & Tunnels	10/31/2015	40	TRUE	\$14,951	\$15,388
94	E-940 Rockhaven Well 16	CVWD005910	Wells & Tunnels	7/1/2016	40	TRUE	\$2,614,961	\$2,696,814
95	E979 Well 8 Pump Replacement and Rehabilitation	CVWD180104	Wells & Tunnels	5/1/2018	40	TRUE	\$46,492	\$47,610
96	E-983 Well 5 Pump Replacement and Rehab	CVWD180109	Wells & Tunnels	6/30/2018	40	TRUE	\$69,873	\$71,553

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Capital Assets (Detailed)	Asset ID	Category	Acquisition Date	Useful Life	Depreciate?	Original Cost (OC)	RC Less Depreciation (RCLD)
97	E-987 Well 10 Pump Replacement and Rehab	CVWD180110	Wells & Tunnels	6/30/2018	40	TRUE	\$76,008	\$77,835
98	E-1011 Well 16 Rehab	CVWD200108	Wells & Tunnels	6/30/2020	40	TRUE	\$112,939	\$118,143
99	E-999 Well 1 & 7 Rehab	CVWD210101	Wells & Tunnels	7/1/2021	40	TRUE	\$166,447	\$169,115
100	E-1015 Well 11 Rehab	CVWD210104	Wells & Tunnels	12/1/2020	40	TRUE	\$70,801	\$74,063
101	E-1056 Well 9 Rehab	CVWD230223	Wells & Tunnels	6/30/2023	40	TRUE	\$129,066	\$125,839
102	1997-1998 PUMP BUILDING	CVWD000480	Pump House Building	1/1/1998	20	TRUE	\$201,037	\$0
103	1996-1997 PUMP BUILDING	CVWD000680	Pump House Building	1/1/1997	20	TRUE	\$55,101	\$0
104	1997-1998 PUMP BUILDING	CVWD000800	Pump House Building	6/30/1998	20	TRUE	\$2,663	\$0
105	1998-1999 PUMP HOUSE	CVWD000900	Pump House Building	1/1/1999	20	TRUE	\$116,143	\$0
106	MARKRIDGE RESERVOIR PROJECT SITE IMPROVEMENT.	CVWD001160	Pump House Building	10/12/1999	20	TRUE	\$1,553	\$0
107	2006-2007 PUMP HOUSES	CVWD003810	Pump House Building	1/1/2007	20	TRUE	\$863	\$217
108	E-922 Oak Creek Booster C Rehabilitation	CVWD005620	Pump House Building	6/30/2014	20	TRUE	\$7,060	\$4,797
109	E-925 Mills B Motor Replacement	CVWD005630	Pump House Building	6/30/2014	20	TRUE	\$30,094	\$20,450
110	1995-96 TOOLS	CVWD000282	Tools & Lab Equipment	11/30/1995	5	TRUE	\$62,013	\$0
111	1996-1997 TOOLS	CVWD000750	Tools & Lab Equipment	1/1/1997	5	TRUE	\$17,962	\$0
112	PROMINENT CHLORINE ANALYZER FOR EDMUND " I "	CVWD001170	Tools & Lab Equipment	10/26/1999	5	TRUE	\$3,286	\$0
113	ALADIN 41425 - PORTABLE STEAM PRESSURE WASHER	CVWD001180	Tools & Lab Equipment	2/1/2000	5	TRUE	\$3,693	\$0
114	WELDING WIRE FEEDER	CVWD001430	Tools & Lab Equipment	7/21/2000	5	TRUE	\$2,015	\$0
115	HOT TAP MACHINE	CVWD001440	Tools & Lab Equipment	7/31/2000	5	TRUE	\$4,167	\$0
116	PAVEMENT SAW	CVWD001450	Tools & Lab Equipment	7/31/2000	5	TRUE	\$1,080	\$0
117	PNEUMATIC GRINDER	CVWD001770	Tools & Lab Equipment	7/24/2001	5	TRUE	\$439	\$0
118	PIPE THREADER	CVWD001780	Tools & Lab Equipment	7/31/2001	5	TRUE	\$1,010	\$0
119	METROTECH LINE LOCATOR	CVWD001950	Tools & Lab Equipment	12/6/2002	5	TRUE	\$2,439	\$0
120	NEW CUT SAW	CVWD002030	Tools & Lab Equipment	4/12/2003	5	TRUE	\$755	\$0
121	DRILLING MACHINE FOR TAPPING INTO PIPE	CVWD002050	Tools & Lab Equipment	5/30/2003	5	TRUE	\$1,211	\$0
122	MALA EASY LOCATOR EXM	CVWD002500	Tools & Lab Equipment	2/23/2005	5	TRUE	\$8,376	\$0
123	CHLORINE MONITOR	CVWD002890	Tools & Lab Equipment	8/18/2005	5	TRUE	\$2,361	\$0

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Capital Assets (Detailed)	Asset ID	Category	Acquisition Date	Useful Life	Depreciate?	Original Cost (OC)	RC Less Depreciation (RCLD)
124	WATER SAMPLE STATIONS EZ-01	CVWD002940	Tools & Lab Equipment	9/23/2005	5	TRUE	\$1,201	\$0
125	ASPHALT/SOIL COMPACTOR	CVWD003880	Tools & Lab Equipment	8/6/2007	5	TRUE	\$1,245	\$0
126	MIL 907194041 TORCH 200/230/460	CVWD003990	Tools & Lab Equipment	10/1/2007	5	TRUE	\$4,997	\$0
127	CHOP SAW	CVWD004170	Tools & Lab Equipment	5/31/2008	5	TRUE	\$1,242	\$0
128	TRENCH SHORING-TRENCH BOX	CVWD004220	Tools & Lab Equipment	11/30/2007	5	TRUE	\$6,682	\$0
129	FX65QT Hammer w/1/4yd WR Bracket	CVWD005080	Tools & Lab Equipment	8/3/2011	5	TRUE	\$13,648	\$0
130	Unit # 3 Hydro Excavator - Pacific Tek	CVWD005420	Tools & Lab Equipment	2/12/2013	5	TRUE	\$20,165	\$0
131	Grundomat 75P Deluxe Package Power Lateral Pipe Bursting Tool	CVWD005650	Tools & Lab Equipment	8/27/2014	5	TRUE	\$7,721	\$0
132	3240 MILLS AVE - CIP OFFICE	CVWD003430	Dwelling/Rental House	11/1/2005	1	TRUE	\$163,953	\$0
133	3935 PENNSYLVANIA BUILDING	CVWD004240	Dwelling/Rental House	7/31/2007	1	TRUE	\$72,540	\$0
134	C-1017 Mills House Repairs	CVWD210106	Dwelling/Rental House	8/1/2020	15	TRUE	\$16,045	\$13,676
135	95-96 SCADA SYSTEM	CVWD000302	SCADA	1/1/1996	10	TRUE	\$338,006	\$0
136	SCADA SYSTEM - VOLTAGE TRANSDUCERS	CVWD001880	SCADA	9/24/2001	10	TRUE	\$3,604	\$0
137	LEVEL TRANSDUCER	CVWD002410	SCADA	8/28/2003	10	TRUE	\$1,316	\$0
138	Software for SCADA communications ActiveFactory	CVWD002640	SCADA	2/24/2005	10	TRUE	\$2,337	\$0
139	WONDERWARE SCADAAlarm v6.0/v6.0 redundant	CVWD002660	SCADA	2/11/2005	10	TRUE	\$4,312	\$0
140	Wonderware InSQL 25,000 Tag Software by WaterHammer	CVWD002700	SCADA	7/6/2005	10	TRUE	\$18,500	\$0
141	MOTOR CONTROL CENTER/MAIN SWITCHBOARD	CVWD003200	SCADA	1/13/2006	10	TRUE	\$128,386	\$0
142	RTU-20 MCC, ADDITION TO WELL 15 MOTOR CONTROLS	CVWD003350	SCADA	4/13/2006	10	TRUE	\$5,805	\$0
143	E-807 SCADA ASSESSMENT	CVWD004380	SCADA	5/31/2009	10	TRUE	\$25,364	\$0
144	E-810 SCADA PHASE 1	CVWD004390	SCADA	5/31/2009	10	TRUE	\$105,102	\$0
145	E-848 Ramsdell/Mayfield SCADA	CVWD004850	SCADA	10/1/2010	10	TRUE	\$23,790	\$0
146	E-875 Wireless Communications	CVWD005220	SCADA	5/31/2012	10	TRUE	\$222,577	\$0
147	C-902 SCADA Phase IA Tesco	CVWD005430	SCADA	3/31/2013	10	TRUE	\$40,746	\$0
148	1970-71 GLEN HQ	CVWD000169	Glenwood Building	1/1/1971	40	TRUE	\$800	\$0
149	1971-72 GLEN HQ	CVWD000170	Glenwood Building	1/1/1972	40	TRUE	\$24,503	\$0
150	1972-73 GLEN HQ	CVWD000171	Glenwood Building	1/1/1973	40	TRUE	\$149,454	\$0
151	1973-74 GLEN HQ	CVWD000172	Glenwood Building	1/1/1974	40	TRUE	\$146,875	\$0
152	1974-75 GLEN HQ	CVWD000173	Glenwood Building	1/1/1975	40	TRUE	\$2,500	\$0
153	1978-79 GLEN HQ	CVWD000174	Glenwood Building	1/1/1979	40	TRUE	\$22,592	\$0
154	1984-85 GLEN HQ	CVWD000175	Glenwood Building	1/1/1985	40	TRUE	\$4,909	\$390
155	IMPROVEMENTS	CVWD000305	Glenwood Building	3/31/1996	40	TRUE	\$202	\$144
156	CARPORT IMPROVEMENT GLENWOOD	CVWD001280	Glenwood Building	1/1/2000	40	TRUE	\$36,552	\$31,322
157	CAR PORT STRUCTURE PROJECT	CVWD001580	Glenwood Building	10/31/2000	40	TRUE	\$8,136	\$6,971
158	NEW CARPORT AT GLENWOOD	CVWD002160	Glenwood Building	7/1/2002	40	TRUE	\$9,935	\$9,113
159	GLENWOOD PLANT AIR CONDENSER	CVWD002420	Glenwood Building	6/15/2004	40	TRUE	\$2,100	\$1,967
160	ELECTRICAL CONNECTION-GLENWOOD PLANT	CVWD003260	Glenwood Building	2/16/2006	40	TRUE	\$2,320	\$2,194
161	E-809 GLENWOOD PLANT REMODEL	CVWD004150	Glenwood Building	5/31/2008	40	TRUE	\$122,747	\$118,112
162	E-846 SECURITY GATE AT GLENWOOD	CVWD004490	Glenwood Building	5/31/2009	40	TRUE	\$20,484	\$19,909

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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163	E-895 Two Security Gates at Glenwood Plant	CVWD0005160	Glenwood Building	3/31/2012	40	TRUE	\$31,108	\$31,177
164	Unit 29 INT'L NAVISTAR MODEL GA325 DIESEL GENERATOR	CVWD000820	Safety Equipment	11/30/1998	10	TRUE	\$56,831	\$0
165	AIR SYSTEMS CONFINED SPACE BLOWERS	CVWD000830	Safety Equipment	3/31/1999	10	TRUE	\$1,325	\$0
166	GENERATOR STORAGE BUILDING (@ ROSEMONT RES)	CVWD000840	Safety Equipment	6/30/1999	10	TRUE	\$14,709	\$0
167	PORTABLE GENERATOR STORAGE BLDG @ ROSEMONT.	CVWD001100	Safety Equipment	1/1/2000	10	TRUE	\$8,558	\$0
168	GAS DETECTOR KIT	CVWD001700	Safety Equipment	7/23/2001	10	TRUE	\$1,658	\$0
169	MASKS-SCBA FOR CONFINED SPACE ENTRY	CVWD001710	Safety Equipment	8/13/2001	10	TRUE	\$1,358	\$0
170	Unit 37 ARROW BOARD TRAILER-DIESEL	CVWD001960	Safety Equipment	7/23/2002	10	TRUE	\$5,120	\$0
171	MOTOROLA RADIOS FOR EMERGENCIES	CVWD002900	Safety Equipment	8/16/2005	10	TRUE	\$4,270	\$0
172	2 TRENCH PLATES 8' X 10" REG AND LIFTING EYE	CVWD004300	Safety Equipment	9/17/2008	10	TRUE	\$6,036	\$0
173	E-851 Arc Flash Study	CVWD004510	Safety Equipment	7/31/2009	10	TRUE	\$26,589	\$0
174	E-838 Security & Surveillance	CVWD004980	Safety Equipment	5/31/2011	10	TRUE	\$27,473	\$0
175	E-874 Seismic Sensors - Edmund	CVWD005020	Safety Equipment	5/31/2011	10	TRUE	\$101,149	\$0
176	E-880 Diesel Tank at Glenwood	CVWD005230	Safety Equipment	5/31/2012	10	TRUE	\$42,220	\$0
177	E-976 Seismic Sensors	CVWD200103	Safety Equipment	6/30/2020	10	TRUE	\$91,531	\$63,832
178	1959-60 PIPELINE	CVWD000007	Pipelines	1/1/1960	10	TRUE	\$200,079	\$0
179	1960-61 PIPELINE	CVWD000008	Pipelines	1/1/1961	10	TRUE	\$439,781	\$0
180	1962-63 PIPELINE	CVWD000010	Pipelines	1/1/1963	10	TRUE	\$184,036	\$0
181	1963-64 PIPELINE	CVWD000011	Pipelines	1/1/1964	10	TRUE	\$97,769	\$0
182	1964-65 PIPELINE	CVWD000012	Pipelines	1/1/1965	10	TRUE	\$125,069	\$0
183	1965-66 PIPELINE	CVWD000013	Pipelines	1/1/1966	10	TRUE	\$119,098	\$0
184	1966-67 PIPELINE	CVWD000014	Pipelines	1/1/1967	10	TRUE	\$37,524	\$0
185	1967-68 PIPELINE	CVWD000015	Pipelines	1/1/1968	10	TRUE	\$28,285	\$0
186	1968-69 PIPELINE	CVWD000016	Pipelines	1/1/1969	10	TRUE	\$44,858	\$0
187	1969-70 PIPELINE	CVWD000017	Pipelines	1/1/1970	10	TRUE	\$152,145	\$0
188	1970-71 PIPELINE	CVWD000018	Pipelines	1/1/1971	10	TRUE	\$78,356	\$0
189	1971-72 PIPELINE	CVWD000019	Pipelines	1/1/1972	10	TRUE	\$22,367	\$0
190	1972-73 PIPELINE	CVWD000020	Pipelines	1/1/1973	10	TRUE	\$198,119	\$0
191	1973-74 PIPELINE	CVWD000021	Pipelines	1/1/1974	10	TRUE	\$51,369	\$0
192	1974-75 PIPELINE	CVWD000022	Pipelines	1/1/1975	10	TRUE	\$44,735	\$0
193	1975-76 PIPELINE	CVWD000023	Pipelines	1/1/1976	10	TRUE	\$37,014	\$0
194	1976-77 PIPELINE	CVWD000024	Pipelines	1/1/1977	10	TRUE	\$103,210	\$0
195	1977-78 PIPELINE	CVWD000025	Pipelines	1/1/1978	10	TRUE	\$80,135	\$0
196	1978-79 PIPELINE	CVWD000026	Pipelines	1/1/1979	10	TRUE	\$137,268	\$0
197	1979-80 PIPELINE	CVWD000027	Pipelines	1/1/1980	10	TRUE	\$34,980	\$0
198	1980-81 PIPELINE	CVWD000028	Pipelines	1/1/1981	10	TRUE	\$135,580	\$0
199	1981-82 PIPELINE	CVWD000029	Pipelines	1/1/1982	10	TRUE	\$75,493	\$0
200	1982-83 PIPELINE	CVWD000030	Pipelines	1/1/1983	10	TRUE	\$120,252	\$0
201	1983-84 PIPELINE	CVWD000031	Pipelines	1/1/1984	10	TRUE	\$148,476	\$0
202	1984-85 PIPELINE	CVWD000032	Pipelines	1/1/1985	10	TRUE	\$114,854	\$0
203	1985-86 PIPELINE	CVWD000033	Pipelines	1/1/1986	10	TRUE	\$122,999	\$0
204	1986-87 PIPELINE	CVWD000034	Pipelines	1/1/1987	10	TRUE	\$113,008	\$0
205	1987-88 PIPELINE	CVWD000035	Pipelines	1/1/1988	10	TRUE	\$111,017	\$0
206	1988-89 PIPELINE	CVWD000036	Pipelines	1/1/1989	10	TRUE	\$73,206	\$0
207	1989-90 PIPELINE	CVWD000037	Pipelines	1/1/1990	10	TRUE	\$146,515	\$0
208	1990-91 PIPELINE	CVWD000038	Pipelines	1/1/1991	10	TRUE	\$110,323	\$0
209	1991-92 PIPELINE	CVWD000222	Pipelines	1/1/1992	10	TRUE	\$93,056	\$0
210	1992-93 PIPELINE	CVWD000230	Pipelines	1/1/1993	10	TRUE	\$88,197	\$0
211	1993-94 PIPELINE	CVWD000241	Pipelines	1/1/1994	10	TRUE	\$157,919	\$0

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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212	1994-95 PIPELINE	CVWD000255	Pipelines	1/1/1995	10	TRUE	\$243,409	\$0
213	1995-96 PIPELINE	CVWD000275	Pipelines	1/1/1996	40	TRUE	\$513,288	\$365,156
214	1997-1998 PIPELINE	CVWD000390	Pipelines	1/1/1998	40	TRUE	\$366,873	\$289,064
215	1996-1997 PIPELINE	CVWD000710	Pipelines	1/1/1997	40	TRUE	\$422,577	\$314,160
216	1997-1998 PIPELINE	CVWD000810	Pipelines	6/30/1998	40	TRUE	\$68,228	\$53,758
217	1998-1999 PIPELINE	CVWD000860	Pipelines	1/1/1999	40	TRUE	\$596,934	\$492,367
218	1999-2000 PIPELINE	CVWD001110	Pipelines	1/1/2000	40	TRUE	\$671,430	\$575,351
219	2000-2001 PIPELINE	CVWD001390	Pipelines	1/1/2001	40	TRUE	\$971,027	\$867,078
220	2001 - 2002 PIPELINE	CVWD001730	Pipelines	1/1/2002	40	TRUE	\$1,015,907	\$931,867
221	2002-2003 PIPELINE	CVWD002170	Pipelines	1/1/2003	40	TRUE	\$689,707	\$652,236
222	2003-2004 PIPELINE	CVWD002440	Pipelines	1/1/2004	40	TRUE	\$1,256,030	\$1,176,326
223	2004-2005 PIPELINE	CVWD002730	Pipelines	1/1/2005	40	TRUE	\$1,574,281	\$1,479,282
224	2003-2005 PIPELINE LABOR	CVWD002810	Pipelines	7/1/2004	40	TRUE	\$165,688	\$155,174
225	2005-2006 PIPELINES	CVWD003390	Pipelines	1/1/2006	40	TRUE	\$1,359,658	\$1,285,781
226	2006-2007 PIPELINES	CVWD003760	Pipelines	1/1/2007	40	TRUE	\$1,225,412	\$1,178,806
227	2007-2008 PIPELINES	CVWD004210	Pipelines	1/15/2008	40	TRUE	\$1,395,957	\$1,343,243
228	E-837 VALVE REPLACEMENT - RAMSDELL	CVWD004470	Pipelines	5/31/2009	40	TRUE	\$18,394	\$17,877
229	2008-09 PIPELINE	CVWD004500	Pipelines	1/1/2009	40	TRUE	\$1,119,263	\$1,087,837
230	E- 854 Reroute Main Glenwood Plant	CVWD004520	Pipelines	7/31/2009	40	TRUE	\$16,273	\$15,816
231	E-864 8" WATER MAIN	CVWD004780	Pipelines	6/30/2010	40	TRUE	\$420,611	\$414,089
232	PIPELINES 2009-2010	CVWD004820	Pipelines	1/1/2010	40	TRUE	\$140,511	\$138,332
233	2010-2011 Pipelines (E-814)	CVWD004890	Pipelines	3/1/2011	40	TRUE	\$255,723	\$253,629
234	E-866 Inlet/Outlet Pipe at Edmund	CVWD005120	Pipelines	3/31/2012	40	TRUE	\$23,941	\$23,995
235	C-870 Pipeline Relocation - Pickens	CVWD005180	Pipelines	3/31/2012	40	TRUE	\$46,529	\$46,633
236	E-822 Water Main Chapman Avenue	CVWD005240	Pipelines	5/31/2012	40	TRUE	\$196,040	\$196,480
237	E-889 8" Water Main on Cloud Avenue	CVWD005250	Pipelines	5/31/2012	40	TRUE	\$203,136	\$203,592
238	C-906 4" Water Main on Ramsdell	CVWD005290	Pipelines	5/31/2012	40	TRUE	\$3,468	\$3,476
239	D-09-09 New Fire Hydrant Installation	CVWD005320	Pipelines	10/1/2012	40	TRUE	\$34,275	\$34,352
240	E-823 Pressure Reducing Station	CVWD005350	Pipelines	2/28/2013	40	TRUE	\$95,312	\$96,461
241	E-907 8" Pipe 5000 Maryland	CVWD005360	Pipelines	2/28/2013	40	TRUE	\$79,892	\$80,855
242	E-911 Water Main on Santa Carlotta and Cloud	CVWD005670	Pipelines	12/31/2014	40	TRUE	\$528,522	\$538,722
243	E-766 Recatssification of Grant	CVWD005690	Pipelines	7/1/2014	40	TRUE	\$51,343	\$52,334
244	E-921 Water Main Replacement: Paraiso - Cloud - Ramsdell	CVWD005710	Pipelines	5/1/2015	40	TRUE	\$718,955	\$739,978
245	E-937 14" Water Main Replacement 3800 Block of Honolulu	CVWD005720	Pipelines	5/1/2015	40	TRUE	\$114,484	\$117,832
246	E-947 Water main at 2900 block of Paraiso/Santa Carlotta	CVWD005850	Pipelines	6/1/2016	40	TRUE	\$492,169	\$507,575
247	E-961 8" Pipeline - 2800 Prospect - 4400 Glenwood	CVWD180101	Pipelines	7/1/2017	40	TRUE	\$380,102	\$389,227
248	E-972 Mills Pipeline at 4200 Block of Pennsylvania	CVWD180106	Pipelines	3/1/2018	40	TRUE	\$458,843	\$469,874
249	E-960 8" Pipeline - 2600 Harmony - 3900 Park Pl - 2700 Brookhill	CVWD180107	Pipelines	6/30/2018	40	TRUE	\$516,897	\$529,324
250	E-766A Water Supply Interconnection with City of LA Honolulu & Lowell	CVWD170101	Pipelines	12/31/2016	40	TRUE	\$28,893	\$29,797
251	E-957 Lower Pickens Canyon Pipeline Crossing Replacement	CVWD190102	Pipelines	9/30/2018	40	TRUE	\$718,873	\$736,156
252	E-982 8-inch Water Main 2700, 3000 and 3100 Blocks of Brookhill 5000 block of La Crescenta Ave	CVWD190104	Pipelines	4/30/2019	40	TRUE	\$1,124,028	\$1,161,903
253	E-1002 Brookhill Pipeline	CVWD200105	Pipelines	5/1/2020	40	TRUE	\$620,578	\$649,172
254	E-1003 Penn Ave Valve	CVWD200106	Pipelines	6/30/2020	40	TRUE	\$32,354	\$33,845
255	E-1009 Pennsylvania Pipeline	CVWD200107	Pipelines	6/30/2020	40	TRUE	\$770,728	\$806,239
256	E-1008 Janet Lee	CVWD220109	Pipelines	3/1/2022	40	TRUE	\$904,749	\$880,657
257	E-1034 Alabama Street 8-inch Pipeline Replacement Project	CVWD230227	Pipelines	4/1/2023	40	TRUE	\$951,524	\$927,736
258	E-1019 Pipeline 4300 Rosemont	CVWD230228	Pipelines	4/1/2023	40	TRUE	\$52,298	\$50,991
259	E-1021 Pipeline 3400 & 3500 Encinal	CVWD230229	Pipelines	12/1/2022	40	TRUE	\$784,177	\$763,296

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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260	E-1022 Pipeline P-D-EC-G-S	CVWD230230	Pipelines	10/1/2022	40	TRUE	\$822,312	\$800,416
261	E-1033 Pipeline 2800 & 3100 Los Olivos	CVWD230231	Pipelines	2/1/2023	40	TRUE	\$1,530,356	\$1,492,097
262	1953-54 RESERVOIR	CVWD000070	Reservoirs	1/1/1954	40	TRUE	\$217,000	\$0
263	1954-55 RESERVOIR	CVWD000071	Reservoirs	1/1/1955	40	TRUE	\$67,800	\$0
264	1955-56 RESERVOIR	CVWD000072	Reservoirs	1/1/1956	40	TRUE	\$43,839	\$0
265	1956-57 RESERVOIR	CVWD000073	Reservoirs	1/1/1957	40	TRUE	\$779	\$0
266	1957-58 RESERVOIR	CVWD000074	Reservoirs	1/1/1958	40	TRUE	\$4,773	\$0
267	1958-59 RESERVOIR	CVWD000075	Reservoirs	1/1/1959	40	TRUE	\$99,661	\$0
268	1959-60 RESERVOIR	CVWD000076	Reservoirs	1/1/1960	40	TRUE	\$8,511	\$0
269	1960-61 RESERVOIR	CVWD000077	Reservoirs	1/1/1961	40	TRUE	\$264,867	\$0
270	1961-62 RESERVOIR	CVWD000078	Reservoirs	1/1/1962	40	TRUE	\$120,623	\$0
271	1962-63 RESERVOIR	CVWD000079	Reservoirs	1/1/1963	40	TRUE	\$8,898	\$0
272	1963-64 RESERVOIR	CVWD000080	Reservoirs	1/1/1964	40	TRUE	\$1,043	\$0
273	1964-65 RESERVOIR	CVWD000081	Reservoirs	1/1/1965	40	TRUE	\$49	\$0
274	1965-66 RESERVOIR	CVWD000082	Reservoirs	1/1/1966	40	TRUE	\$68,662	\$0
275	1966-67 RESERVOIR	CVWD000083	Reservoirs	1/1/1967	40	TRUE	\$54,932	\$0
276	1967-68 RESERVOIR	CVWD000084	Reservoirs	1/1/1968	40	TRUE	\$42,752	\$0
277	1968-69 RESERVOIR	CVWD000085	Reservoirs	1/1/1969	40	TRUE	\$19,909	\$0
278	1969-70 RESERVOIR	CVWD000086	Reservoirs	1/1/1970	40	TRUE	\$3,207	\$0
279	1970-71 RESERVOIR	CVWD000087	Reservoirs	1/1/1971	40	TRUE	\$48,067	\$0
280	1971-72 RESERVOIR	CVWD000088	Reservoirs	1/1/1972	40	TRUE	\$5,605	\$0
281	1972-73 RESERVOIR	CVWD000089	Reservoirs	1/1/1973	40	TRUE	\$624	\$0
282	1973-74 RESERVOIR	CVWD000090	Reservoirs	1/1/1974	40	TRUE	\$26,308	\$0
283	1974-75 RESERVOIR	CVWD000091	Reservoirs	1/1/1975	40	TRUE	\$47,657	\$0
284	1975-76 RESERVOIR	CVWD000092	Reservoirs	1/1/1976	40	TRUE	\$4,743	\$0
285	1977-78 RESERVOIR	CVWD000093	Reservoirs	1/1/1978	40	TRUE	\$2,810	\$0
286	1978-79 RESERVOIR	CVWD000094	Reservoirs	1/1/1979	40	TRUE	\$6,152	\$0
287	1979-80 RESERVOIR	CVWD000095	Reservoirs	1/1/1980	40	TRUE	\$15,385	\$0
288	1980-81 RESERVOIR	CVWD000096	Reservoirs	1/1/1981	40	TRUE	\$41,346	\$0
289	1983-84 RESERVOIR	CVWD000097	Reservoirs	1/1/1984	40	TRUE	\$3,608	\$0
290	1984-85 RESERVOIR	CVWD000098	Reservoirs	1/1/1985	40	TRUE	\$1,320,135	\$104,848
291	1985-86 RESERVOIR	CVWD000099	Reservoirs	1/1/1986	40	TRUE	\$1,394,978	\$216,425
292	1986-87 RESERVOIR	CVWD000100	Reservoirs	1/1/1987	40	TRUE	\$7,266	\$1,648
293	1994-95 RESEVOIR	CVWD000256	Reservoirs	3/15/1995	40	TRUE	\$17,904	\$11,994
294	1995-96 RESERVOIR	CVWD000279	Reservoirs	3/31/1996	40	TRUE	\$255,571	\$181,815
295	1997-1998 RESEVOIR	CVWD000330	Reservoirs	1/1/1998	40	TRUE	\$131,380	\$103,516
296	1996-1997 RESEVOIR	CVWD000730	Reservoirs	1/1/1997	40	TRUE	\$140,172	\$104,209
297	1998-1999 RESEVOIR	CVWD000880	Reservoirs	1/1/1999	40	TRUE	\$446,127	\$367,977
298	1999-2000 RESEVOIR	CVWD001140	Reservoirs	1/1/2000	40	TRUE	\$781,639	\$669,789
299	2000-2001 RESERVOIRS	CVWD001410	Reservoirs	1/1/2001	40	TRUE	\$1,021,593	\$912,230
300	2001 - 2002 RESERVOIRS	CVWD001750	Reservoirs	1/1/2002	40	TRUE	\$321,774	\$295,156
301	2005-2006 RESERVOIRS	CVWD003410	Reservoirs	1/1/2006	40	TRUE	\$18,801	\$17,779
302	2006-2007 RESERVOIRS	CVWD003780	Reservoirs	1/1/2007	40	TRUE	\$2,444	\$2,351
303	E-783 OAK CREEK RECOAT	CVWD004080	Reservoirs	5/31/2008	40	TRUE	\$5,851	\$5,630
304	E-768 Roof - Edmund #1	CVWD004640	Reservoirs	6/30/2010	40	TRUE	\$252,208	\$248,297
305	E-770 ROOF AT OLD ENCINAL	CVWD004650	Reservoirs	6/30/2010	40	TRUE	\$56,124	\$55,254
306	E-826 CORROSION CONTROL STUDY	CVWD004710	Reservoirs	6/30/2010	40	TRUE	\$107,367	\$105,702
307	E-847 MARKRIDGE CORROSION STUDY	CVWD004740	Reservoirs	6/30/2010	40	TRUE	\$51,341	\$50,545
308	C-873 Edmund II Reservoir	CVWD004940	Reservoirs	5/31/2011	40	TRUE	\$28,049	\$27,819

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Line	Capital Assets (Detailed)	Asset ID	Category	Acquisition Date	Useful Life	Depreciate?	Original Cost (OC)	RC Less Depreciation (RCLD)
309	C-879 Pickens Reservoir	CVWD004950	Reservoirs	5/31/2011	40	TRUE	\$110,268	\$109,365
310	Edmund 2 Reservoir Repair	CVWD005110	Reservoirs	1/1/2012	40	TRUE	\$26,229	\$26,288
311	E-891 Electrical - Dunsmore	CVWD005140	Reservoirs	3/31/2012	40	TRUE	\$10,375	\$10,398
312	E-892 Electrical - Pickens	CVWD005150	Reservoirs	3/31/2012	40	TRUE	\$12,317	\$12,345
313	C-879A Pickens Canyon Reservoir	CVWD005730	Reservoirs	5/1/2015	40	TRUE	\$133,697	\$137,606
314	E-918 Encinal A Pump Replacement	CVWD005740	Reservoirs	5/1/2015	40	TRUE	\$24,556	\$25,274
315	E-936 Roof Replacement - Edmund I Reservoir	CVWD005750	Reservoirs	5/1/2015	40	TRUE	\$350,503	\$360,752
316	E-941 Eagle Canyon Booster B Replacement	CVWD005760	Reservoirs	5/1/2015	40	TRUE	\$40,311	\$41,490
317	M-933 Wall and Fence at Ordunio Reservoir	CVWD005940	Reservoirs	1/30/2017	40	TRUE	\$62,766	\$64,273
318	M-933 Ordunio Reservoir Wall & Fence	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$3,970	\$4,065
319	M-933 Ordunio Reservoir Power Pole	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$6,620	\$6,779
320	E-976 Pickens Canyon Reservoir Concrete Pads	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$2,117	\$2,167
321	E-976 Pickens Canyon Reservoir 12"x6" vic.spool	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$436	\$446
322	E-976 Pickens Canyon Reservoir 12"x6" vic.cplg	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$474	\$485
323	E-976 Pickens Canyon Reservoir 12"x6" vic.cplg2	CVWD00ABCD	Reservoirs	3/31/2017	40	TRUE	\$474	\$485
324	E-943 Ocean View Reservoir - Overflow - Investigation/Cleanup	CVWD180105	Reservoirs	7/1/2017	40	TRUE	\$93,754	\$96,005
325	E-970 Oak Creek Reservoir Roof Rehabilitation	CVWD190103	Reservoirs	6/30/2019	40	TRUE	\$1,097,345	\$1,134,321
326	E-1006 Markridge Reservoir	CVWD220108	Reservoirs	2/1/2022	40	TRUE	\$504,461	\$491,028
327	E-1018 Rosemont Resrv Rehab	CVWD220110	Reservoirs	1/1/2022	40	TRUE	\$611,428	\$595,147
328	E-1026 Oak Creek Manifold Replace	CVWD220111	Reservoirs	9/1/2021	40	TRUE	\$56,769	\$57,678
329	E-1036 Edmund #2 Reservoir	CVWD230226	Reservoirs	9/30/2022	40	TRUE	\$707,534	\$688,694
330	E-1053 Goss Canyon Reservoir	CVWD230224	Reservoirs	6/30/2023	40	TRUE	\$517,461	\$504,524
331	1998-1999 GENERATOR	CVWD001020	Generators	1/1/1999	10	TRUE	\$12,898	\$0
332	UNIT #28 3 PHASE/SINGLE PHASE 70KW GENERATOR	CVWD002630	Generators	10/18/2004	10	TRUE	\$17,266	\$0
333	SAFETY LOCK CONNECTOR SYSTEM FOR GENERATOR	CVWD002790	Generators	4/30/2005	10	TRUE	\$1,176	\$0
334	Unit 35 E778 KOHLER EMERG GENERATOR #500REOZVB	CVWD003360	Generators	5/12/2006	10	TRUE	\$51,010	\$0
335	Unit 35 E-778 KOHLER EMERGENCY GENERATOR	CVWD003360-B	Generators	3/30/2007	10	TRUE	\$155,835	\$0
336	Unit 41 70KW Diesel Generator - Sunbelt Vendor	CVWD005200	Generators	3/20/2012	10	TRUE	\$15,660	\$0
337	C-917 Emergency Generators	CVWD005500	Generators	5/31/2013	10	TRUE	\$44,565	\$0
338	Doosan Portable Light Tower - 4 lights	CVWD005930	Generators	11/1/2016	10	TRUE	\$8,077	\$2,082
339	C-993 Emergency Generator	CVWD200104	Generators	6/30/2020	10	TRUE	\$101,491	\$70,778
340	Unit #23B 96 GO-4 BT57 UTIL VH	CVWD000290	Autos & Trucks	11/6/1995	4	TRUE	\$16,900	\$0
341	Unit #11 1996 FORD F350 FLATBED	CVWD000600	Autos & Trucks	8/31/1996	4	TRUE	\$10,267	\$0
342	Unit #26 WELDING MACHINE	CVWD000950	Autos & Trucks	6/30/1999	4	TRUE	\$8,235	\$0
343	Unit #26 SINGLE AXLE TRAILER	CVWD001060	Autos & Trucks	7/8/1999	4	TRUE	\$1,716	\$0
344	Unit #17 1999-YALE FORKLIFT	CVWD001070	Autos & Trucks	7/31/1999	4	TRUE	\$10,477	\$0
345	Unit #16 2000-FORD F65 WITH CRANE	CVWD001080	Autos & Trucks	1/7/2000	4	TRUE	\$39,004	\$0
346	Unit #16 HIGH GATE 12" FOR BOOM TRUCK	CVWD001090	Autos & Trucks	1/31/2000	4	TRUE	\$1,143	\$0
347	Unit #25 FORD F650 DUMP TRUCK	CVWD001590	Autos & Trucks	11/21/2000	4	TRUE	\$41,951	\$0
348	Unit #16 TRUCK BED CRANE	CVWD001820	Autos & Trucks	10/29/2001	4	TRUE	\$2,115	\$0
349	Unit #8 F-150 REGULAR CAB W/UTILITY BODY W/ARROW LIGHT	CVWD002280	Autos & Trucks	9/29/2003	4	TRUE	\$16,795	\$0
350	Unit #21 14' TRAILER	CVWD002520	Autos & Trucks	8/25/2004	4	TRUE	\$2,031	\$0
351	Unit #21 8' RAMPS FOR 14' TRAILER	CVWD002530	Autos & Trucks	8/25/2004	4	TRUE	\$183	\$0
352	Unit #21 EXCAVATOR KOMATSU PC27 MR-1 #11877	CVWD002540	Autos & Trucks	8/25/2004	4	TRUE	\$23,569	\$0
353	Unit #27 2006 F-350 PICK UP	CVWD003000	Autos & Trucks	10/18/2005	4	TRUE	\$19,242	\$0
354	Unit #6 2005 F-150 SUPERCAB	CVWD003020	Autos & Trucks	10/18/2005	4	TRUE	\$13,652	\$0
355	Unit #27 TRUCK HITCH	CVWD003170	Autos & Trucks	12/29/2005	4	TRUE	\$6,576	\$0
356	Unit #9 FORD F150 TRUCK	CVWD003640	Autos & Trucks	4/1/2007	4	TRUE	\$15,251	\$0

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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357	Unit #18 F650 DUMP TRUCK	CVWD003730	Autos & Trucks	6/14/2007	4	TRUE	\$56,039	\$0
358	Unit #15 JD 410J BACKHOE WHEEL LOADER	CVWD003860	Autos & Trucks	8/31/2007	4	TRUE	\$70,458	\$0
359	Unit #22 COASTLINE TOWABLE AIR COMPRESSOR	CVWD004000	Autos & Trucks	10/1/2007	4	TRUE	\$12,280	\$0
360	Unit #36 FORD F-350 SUPERCAB AND CHASSIE	CVWD004020	Autos & Trucks	12/26/2007	4	TRUE	\$0	\$0
361	Unit #25 RETROFIT	CVWD004590	Autos & Trucks	8/7/2009	4	TRUE	\$9,763	\$0
362	Unit #19 544J JOHN DEERE LOADER	CVWD004830	Autos & Trucks	9/1/2010	4	TRUE	\$78,296	\$0
363	Unit #2 2013 Ford F-550	CVWD005330	Autos & Trucks	12/19/2012	4	TRUE	\$40,757	\$0
364	Unit #23 2006 GO-4 INTERCEPTOR II	CVWD005340	Autos & Trucks	1/28/2013	4	TRUE	\$20,620	\$0
365	Unit #21 Hydraulic Hammer FX35FSP	CVWD005450	Autos & Trucks	4/30/2013	4	TRUE	\$8,131	\$0
366	Unit #2 Truck Body	CVWD005510	Autos & Trucks	6/3/2013	4	TRUE	\$54,949	\$0
367	Unit #43 2014 F-150 Truck	CVWD005580	Autos & Trucks	4/1/2014	4	TRUE	\$25,661	\$0
368	Unit #44 2014 F-150 Truck	CVWD005590	Autos & Trucks	4/1/2014	4	TRUE	\$23,245	\$0
369	Unit #45 2014 F-350 Diesel Truck	CVWD005600	Autos & Trucks	4/1/2014	4	TRUE	\$44,533	\$0
370	Unit #46 Valve Truck 2015 F-350	CVWD005660	Autos & Trucks	12/18/2014	4	TRUE	\$90,546	\$0
371	Unit #47 2015 Ford F-550 with upgrades from CTEC	CVWD005790	Autos & Trucks	2/16/2015	4	TRUE	\$51,975	\$0
372	Unit #48 2015 Ford F-350 Supercab XL	CVWD005810	Autos & Trucks	9/28/2015	4	TRUE	\$26,180	\$0
373	MOTOROLA P200 2-WAY RADIOS (2 EA)	CVWD001200	Autos & Trucks	8/31/1999	4	TRUE	\$1,683	\$0
374	NEW RADIO UNIT # 25	CVWD001480	Autos & Trucks	12/4/2000	4	TRUE	\$1,324	\$0
375	RADIO IN UNIT# 8	CVWD002350	Autos & Trucks	10/20/2003	4	TRUE	\$887	\$0
376	Unit #54 Compact Excavator	0	Autos & Trucks	8/1/2017	4	TRUE	\$53,045	\$0
377	C-1023 Unit#58	CVWD210108	Autos & Trucks	2/1/2021	4	TRUE	\$31,100	\$8,540
378	C-1024 Unit#59	CVWD210109	Autos & Trucks	2/1/2021	4	TRUE	\$31,291	\$8,593
379	C-1049 Unit#62	CVWD220101	Autos & Trucks	6/30/2022	4	TRUE	\$35,643	\$18,260
380	C-1039 Unit#10	CVWD220102	Autos & Trucks	9/1/2021	4	TRUE	\$36,534	\$10,032
381	C-1048 Unit#61	CVWD220103	Autos & Trucks	6/30/2022	4	TRUE	\$34,964	\$17,912
382	C-1050 Unit#63	CVWD220104	Autos & Trucks	6/30/2022	4	TRUE	\$60,228	\$30,855
383	C-1047 Unit#60	CVWD220106	Autos & Trucks	6/30/2022	4	TRUE	\$23,831	\$12,209
384	RECEPTION AREA COMPLETION	CVWD000650	Office Equipment	8/31/1996	10	TRUE	\$1,499	\$0
385	A/C AND HEAT UNIT FOR SO. BLDG	CVWD000660	Office Equipment	9/30/1996	10	TRUE	\$7,370	\$0
386	AIR CONDITIONING UNIT	CVWD001490	Office Equipment	7/31/2000	10	TRUE	\$3,130	\$0
387	TWO ITRON METER READING HAND HELD DEVICES	CVWD005070	Office Equipment	6/9/2011	10	TRUE	\$7,540	\$0
388	HYDRAULIC SOFTWARE	CVWD001520	Computers	6/30/2001	5	TRUE	\$6,408	\$0
389	AUTOCAD SOFTWARE	CVWD003480	Computers	8/1/2006	5	TRUE	\$22,726	\$0
390	XC62D2CW7 JOE HUERTA'S OFFICE	CVWD003950	Computers	9/30/2007	5	TRUE	\$1,516	\$0
391	E-784 SPRINGBROOK UB SOFTWARE	CVWD004100	Computers	5/31/2008	5	TRUE	\$105,758	\$0
392	E-831 COMPUTER HARDWARE	CVWD004420	Computers	5/31/2009	5	TRUE	\$60,626	\$0
393	E-836 WEBSITE DESIGN	CVWD004450	Computers	5/31/2009	5	TRUE	\$2,620	\$0
394	Dell XD94FTP3 E-867 PO #4993 8 Opti Minitower Base	CVWD004580	Computers	7/31/2009	5	TRUE	\$12,411	\$0
395	E-802A ENTERPRISE COMMUNICATIONS	CVWD004670	Computers	6/30/2010	5	TRUE	\$17,939	\$0
396	E-829 RADIO SURVEY PILOT	CVWD004730	Computers	6/30/2010	5	TRUE	\$20,903	\$0
397	E-866 COMPUTER WORKSTATIONS	CVWD004800	Computers	6/30/2010	5	TRUE	\$49,252	\$0
398	E-818 Financial and Inventory Software	CVWD004970	Computers	5/31/2011	5	TRUE	\$88,332	\$0
399	C-923 SIMS Technology Computer Software	CVWD005460	Computers	4/30/2013	5	TRUE	\$16,000	\$0
400	E-830 GIS: GeoEXPLORER software and labor	CVWD005520	Computers	6/30/2013	5	TRUE	\$26,144	\$0
401	C-928 Network Upgrades	CVWD005540	Computers	2/28/2014	5	TRUE	\$14,952	\$0
402	C-919 New Server	CVWD005550	Computers	2/28/2014	5	TRUE	\$17,257	\$0
403	C-920 SCADA Improvements Phase 1B	CVWD005610	Computers	6/30/2014	5	TRUE	\$29,316	\$0
404	E-927 GIS Software	CVWD005680	Computers	12/31/2014	5	TRUE	\$19,099	\$0
405	C-915 Billing Upgrade	0	Computers	7/1/2016	5	TRUE	\$20,221	\$0

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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406	C-978 Intel Core Processor	CVWD000ABCD	Computers	3/31/2017	5	TRUE	\$5,943	\$0
407	C-978 Triple Work Station	CVWD000ABCD	Computers	4/30/2017	5	TRUE	\$2,925	\$0
408	C-978 Hardware	CVWD000ABCD	Computers	5/31/2017	5	TRUE	\$1,800	\$0
409	C-988 Computer Hardware and Security Upgrade	CVWD180111	Computers	5/31/2018	5	TRUE	\$35,107	\$0
410	C-997W Computer Hardware and Security Upgrade	CVWD190106	Computers	6/30/2019	5	TRUE	\$21,919	\$0
411	C-959 Hardware system security	CVWD200102	Computers	7/1/2019	5	TRUE	\$67,303	\$0
412	C-1014 Springbrook Cloud Upgrade	CVWD200109	Computers	6/30/2020	5	TRUE	\$14,974	\$3,481
413	C-1032 Computers and Hardware	CVWD210113	Computers	4/1/2021	5	TRUE	\$12,505	\$5,494
414	C-1010 FY2020 Netwrok and Hardware	CVWD210102	Computers	9/1/2020	5	TRUE	\$32,611	\$7,581
415	C-1040 FY22 IT Upgrades	CVWD220113	Computers	8/1/2021	5	TRUE	\$21,418	\$9,410
416	BOARD ROOM CHAIRS-8	CVWD000269	Furniture	11/30/1994	10	TRUE	\$2,769	\$0
417	DOUBLE PED-4 FILE DRWS & TOP PUTTY W/ TEAK	CVWD003080	Furniture	10/21/2005	10	TRUE	\$881	\$0
418	OFFICE PANELS SLATE BLUE FABRIC 3'X6X4'	CVWD003090	Furniture	10/19/2005	10	TRUE	\$1,787	\$0
419	STANDARD PANELS/CORNERS-OFFICE	CVWD003100	Furniture	11/29/2005	10	TRUE	\$496	\$0
420	OFFICE PANELS 5'H X 6'W GRAY	CVWD003110	Furniture	11/29/2005	10	TRUE	\$311	\$0
421	DESK PANEL AND MODULAR HUTCH	CVWD003150	Furniture	12/19/2005	10	TRUE	\$735	\$0
422	COMPUTER CREDENZA, DESK, LIBRARY	CVWD003160	Furniture	12/12/2005	10	TRUE	\$1,987	\$0
423	E-801 SIX OFFICE WORKSTATIONS	CVWD003710	Furniture	5/15/2007	10	TRUE	\$35,732	\$0
424	LEATHER CHAIR FOR RON'S OFFICE FROM INFO COM	CVWD004050	Furniture	3/1/2008	10	TRUE	\$1,027	\$0
425	STORAGE, CHAIRS, KEYBOARDS	CVWD004160	Furniture	5/31/2008	10	TRUE	\$20,046	\$0
426	GE REFRIGERATOR - MAIN OFFICE	CVWD004280	Furniture	7/11/2008	10	TRUE	\$925	\$0
427	HIGHMARK WAVE EXECUTIVE LEATHER CHAIR	CVWD004290	Furniture	9/15/2008	10	TRUE	\$852	\$0
428	HIGHMARK WAVE HIGHBACK EXECUTIVE CHAIR BLACK LEATHER UPOLSTERY	CVWD004320	Furniture	10/23/2008	10	TRUE	\$871	\$0
429	1958-59 OFFICE BLDG	CVWD000159	Office Building	1/1/1959	40	TRUE	\$1,677	\$0
430	1959-60 OFFICE BLDG	CVWD000160	Office Building	1/1/1960	40	TRUE	\$1,500	\$0
431	1964-65 OFFICE BLDG	CVWD000161	Office Building	1/1/1965	40	TRUE	\$165	\$0
432	1965-66 OFFICE BLDG	CVWD000162	Office Building	1/1/1966	40	TRUE	\$57,085	\$0
433	1966-67 OFFICE BLDG	CVWD000163	Office Building	1/1/1967	40	TRUE	\$44,156	\$0
434	1967-68 OFFICE BLDG	CVWD000164	Office Building	1/1/1968	40	TRUE	\$336	\$0
435	1970-71 OFFICE BLDG	CVWD000165	Office Building	1/1/1971	40	TRUE	\$1,473	\$0
436	1985-86 OFFICE BLDG	CVWD000166	Office Building	1/1/1986	40	TRUE	\$4,333	\$672
437	1986-87 OFFICE BLDG	CVWD000167	Office Building	1/1/1987	40	TRUE	\$10,855	\$2,463
438	1988-89 OFFICE BLDG	CVWD000168	Office Building	1/1/1989	40	TRUE	\$4,368	\$1,577
439	1990-91 OFF EQ BUS	CVWD000204	Office Building	1/1/1991	40	TRUE	\$5,993	\$2,891
440	CRAIG'S ELECTRIC	CVWD000228	Office Building	1/1/1992	40	TRUE	\$5,453	\$2,916
441	NEW STORAGE ROOM	CVWD000272	Office Building	5/31/1995	40	TRUE	\$10,193	\$6,828
442	NEW RECEPTION AREA	CVWD000304	Office Building	1/1/1996	40	TRUE	\$20,661	\$14,698
443	MODIFIED BITUMEN GLASCAP - ROOF	CVWD001260	Office Building	7/31/1999	40	TRUE	\$11,430	\$9,428
444	SOUTH OFFICE REMODEL	CVWD001560	Office Building	10/1/2000	40	TRUE	\$16,880	\$14,464
445	NEW FLOORING MAIN OFFICES	CVWD001900	Office Building	5/15/2002	40	TRUE	\$8,060	\$7,393
446	WATER CONSERVATION DEMONSTRATION GARDEN	CVWD002150	Office Building	6/30/2003	40	TRUE	\$2,900	\$2,742
447	E723 REMODEL - LANDSCAPE MAIN OFFICE PROJECT	CVWD002470	Office Building	1/1/2004	40	TRUE	\$127,361	\$119,279
448	SANYO 12,000 BTU A/C UNIT	CVWD003210	Office Building	1/6/2006	40	TRUE	\$4,000	\$3,783
449	2.5 TON LUXAIRE DAYPFO30 FOR BOARD ROOM	CVWD003370	Office Building	6/20/2006	40	TRUE	\$4,825	\$4,563
450	CABLE, CAMERA CABLES, COAXIAL CABLE FOR OFFICE	CVWD003380	Office Building	6/20/2006	40	TRUE	\$6,735	\$6,369
451	E-789 BATHROOM REMODEL	CVWD003600	Office Building	1/22/2007	40	TRUE	\$23,444	\$22,553
452	E 798 2006-07 OFFICE BUILDING STRUCTURAL REPAIRS	CVWD003720	Office Building	5/1/2007	40	TRUE	\$24,302	\$23,378
453	BATHROOM REMODEL URINAL	CVWD004090	Office Building	5/31/2008	40	TRUE	\$4,459	\$4,291
454	E-808 MILLS OFFICE REMODEL	CVWD004140	Office Building	5/31/2008	40	TRUE	\$17,464	\$16,804

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

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455	2857 Sycamore Avenue	CVWD005100	Office Building	10/1/2011	40	TRUE	\$114,980	\$114,038
456	Roof - Mills House	CVWD005310	Office Building	3/9/2012	40	TRUE	\$13,272	\$13,302
457	C-973 Main Electrical Panel and Subpanel in IT Office	CVWD005920	Office Building	10/27/2016	40	TRUE	\$12,635	\$13,031
458	C-1016 AC Unit Replacement	CVWD210105	Office Building	8/1/2020	40	TRUE	\$8,981	\$9,395
459	C-1030 Foothill Office Remodel	CVWD220112	Office Building	8/1/2021	40	TRUE	\$67,729	\$68,814
460	1989-90 NITRATE PLT	CVWD000220	Nitrate Plant	1/1/1990	25	TRUE	\$2,114,824	\$0
461	1990-91 NITRATE PLT	CVWD000221	Nitrate Plant	1/1/1991	25	TRUE	\$22,624	\$0
462	1997-1998 NITRATE PLANT	CVWD000430	Nitrate Plant	1/1/1998	25	TRUE	\$41,779	\$0
463	3/4 HP PUMPS FOR NITRATE PLANT	CVWD001370	Nitrate Plant	6/30/2001	25	TRUE	\$1,309	\$220
464	VALVE W/ELECTRIC ACTUATOR	CVWD002060	Nitrate Plant	8/31/2002	25	TRUE	\$1,659	\$406
465	4-INCH FLANGED BUTTERFLY VALVES	CVWD002390	Nitrate Plant	1/26/2004	25	TRUE	\$2,751	\$1,030
466	CHEMSCAN MODEL UV-3150 & H2ONET SOFTWARE-NITRATE MONITORING SYSTEM	CVWD002480	Nitrate Plant	2/28/2005	25	TRUE	\$41,180	\$17,689
467	ELECTRICAL CONNECTION-GLENWOOD PLANT	CVWD003240	Nitrate Plant	2/16/2006	25	TRUE	\$2,320	\$1,117
468	E-791 NITRATE MONITOR AT OAK CREEK	CVWD004330	Nitrate Plant	5/31/2009	25	TRUE	\$16,461	\$10,240
469	C-896 Nitrate Analyzer Oak Creek	CVWD005170	Nitrate Plant	3/31/2012	25	TRUE	\$21,740	\$16,186
470	E-893 Nitrate Rehab and Resin	CVWD005260	Nitrate Plant	5/31/2012	25	TRUE	\$375,481	\$279,555
471	E-956 Nitrate Removal Well 2	CVWD200101	Nitrate Plant	6/30/2020	25	TRUE	\$3,141,559	\$3,067,220
472	E-1052 Chloramine Conversion	CVWD230225	Nitrate Plant	6/30/2023	5	TRUE	\$28,002	\$22,402
473	E-998 AMI	CVWD210114	AMI/Meters	8/1/2020	20	TRUE	\$77,537	\$72,098
474	E-1020 AMI Comm Network	CVWD230232	AMI/Meters	6/30/2023	20	TRUE	\$418,747	\$397,810

Crescenta Valley Water District 2025 Water Budget and Wastewater Rate Study

Table 6-3: Capital Asset Categories

Line	Capital Asset Categories	RCLD	Function
1	Land	\$5,183,214	General
2	Water Treatment	\$0	Treatment
3	Pump Machinery	\$543,555	Pumping
4	Wells & Tunnels	\$6,241,405	Supply
5	Pump House Building	\$25,464	Pumping
6	Tools & Lab Equipment	\$0	Treatment
7	Dwelling/Rental House	\$13,676	General
8	SCADA	\$0	General
9	Glenwood Building	\$221,299	General
10	Safety Equipment	\$63,832	General
11	Pipelines	\$25,450,245	Pipelines
12	Reservoirs	\$7,852,600	Storage
13	Generators	\$72,861	General
14	Autos & Trucks	\$106,401	General
15	Office Equipment	\$0	General
16	Computers	\$25,966	General
17	Furniture	\$0	General
18	Office Building	\$485,671	General
19	Nitrate Plant	\$3,416,064	Treatment
20	AMI/Meters	\$469,907	Meter
21	Total	\$50,172,159	

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