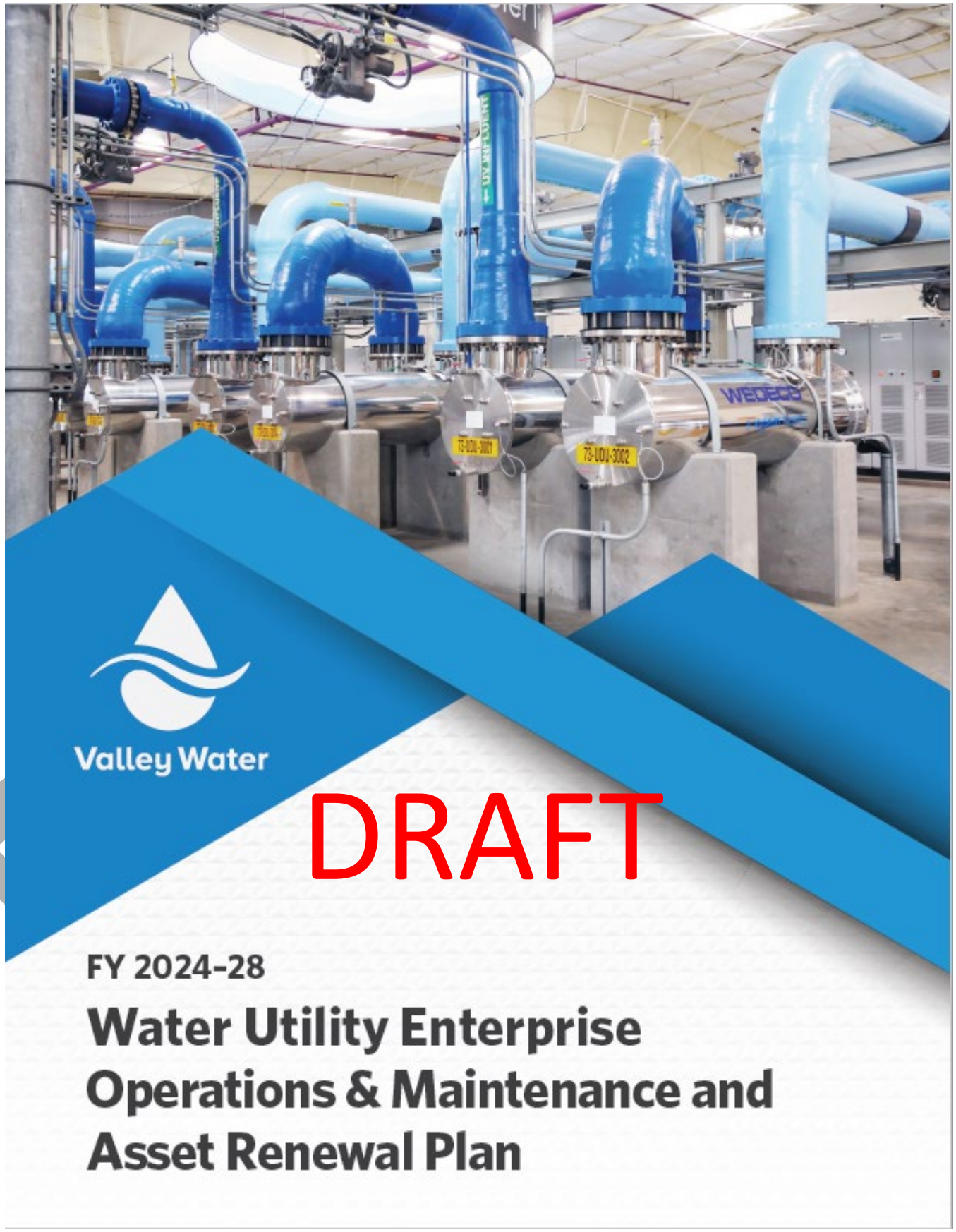

Valley Water

DRAFT

FY 2024-28

Water Utility Enterprise Operations & Maintenance and Asset Renewal Plan

FY 2024-28 Water Utility Enterprise Operations & Maintenance and Asset Renewal Plan

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Effective July 1, 2023

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FACILITY ACRONYMS

AHY = Anderson Hydroelectric Facility
CAD = Campbell Distributary
CDL = Coyote Discharge Line
CPL = Central Pipeline
CPP = Coyote Pumping Plant
CVP = Cross Valley Pipeline
DPP = Dutard Pumping Plant
GPP = Greystone Pumping Plant
LEN = Lenihan Dam
PAC = Pacheco Conduit
PPP = Pacheco Pumping Plant
PWTP or PWT = Penitencia Water Treatment Plant
RWTP or RWT = Rinconada Water Treatment Plant
SCC = Santa Clara Conduit
SFI = San Francisco PUC Intertie
STWTP or SWT = Santa Teresa Water Treatment Plant
SVA = Silicon Valley Advanced Water Purification Center
ULT = Uvas-Llagas Transfer Pipeline
VPP = Vasona Pumping Plant
WSMS = Water Supply Management Systems (e.g., pond systems)

EXECUTIVE SUMMARY

Report Overview

The purpose of this plan is to provide a summary of activities and costs associated with operating and maintaining Valley Water's Water Utility Infrastructure for the next five fiscal years. Specifically, this plan:

- Documents the baseline and unfunded operations and maintenance project resource needs for the Raw and Treated Water Operations Divisions for the next five fiscal years, 2024 to 2028, and provides an explanation of unfunded needs.
- Identifies the water utility planned asset renewal projects scheduled for the next five fiscal years, 2024 to 2028, and provides guidance for planning, scheduling, and budgeting this work in Valley Water's operations or capital budgets.
- Provides a summary of asset renewal work completed in the prior fiscal year 2023.

This is a rolling five-year plan that is updated annually. Throughout the plan, the term 'baseline' refers to activities that provide current service levels and are assumed to be funded in fund forecasts prepared by Valley Water's Financial Planning and Management Services Division. ***The FY24-25 budget requests and unfunded needs are preliminary, and will be evaluated throughout the budget and groundwater charge (rate) setting processes through May 2023.*** The plan will be finalized following Board adoption of Valley Water's budget. The final plan will document the budgeted amounts for each project for FY24, planned amounts for FY25, as well as any remaining unfunded needs following the budget and groundwater charge setting process.

In the past, Valley Water's Water Utility developed three separate plans that have now been combined into this Water Utility Enterprise Operations and Maintenance Plan (WUE OMP). Previous plans included a Five-Year Operations and Maintenance Plan, a Five-Year Maintenance Work Plan, and a Maintenance Work Plan Review Report.

Overview of O&M Activities

The Water Utility budgets and executes operations activities in operating projects, and budgets and executes maintenance work through both operations and capital projects. Work that is budgeted in operations projects includes:

- Operations activities including operator labor, chemical costs, power, etc.
- General maintenance activities including inspections and preventive and corrective maintenance
- Engineering support for operations and general maintenance

Five-year forecasts of baseline and unfunded resource requirements for these operations activities are summarized in Section IV of this plan.

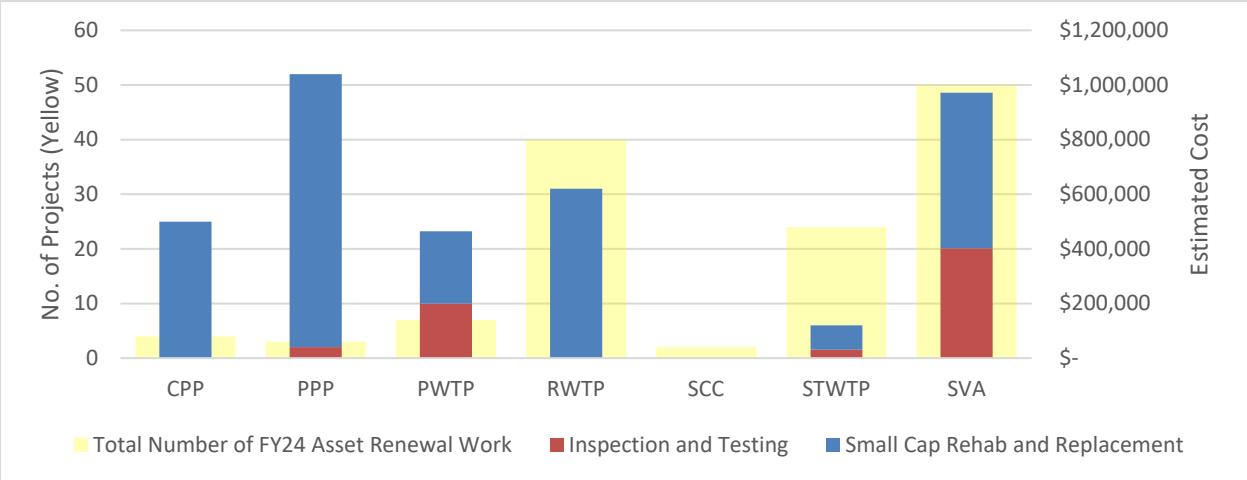
Maintenance work that involves rehabilitation or replacement of an asset or group of assets is budgeted in small or individual capital projects. This type of work extends the life of an asset and is therefore capitalized. Asset rehabilitation and replacement work is identified through the maintenance work planning process described in Section III of this plan. An overview of work for the next five years is below. Note this plan does not include individual/large capital projects as these are included in Valley Water's Five-Year CIP.

In addition, Valley Water is undertaking infrastructure master planning efforts for its water treatment plants, distribution system, and SCADA system. These efforts will identify major facility renewal projects for future years. The projects that come from the master plans will likely be too large for maintenance to execute and will be done as individual capital improvement projects and not included in this plan.

FY 24 – 28 Planned Asset Renewal Work

Figure 1 shows 102 planned asset renewal projects scheduled in fiscal year 2024 (FY24) for Water Utility facilities. This work is estimated at nearly $3.7 Million.

Figure 1: FY24 WUE OMP Planned Work

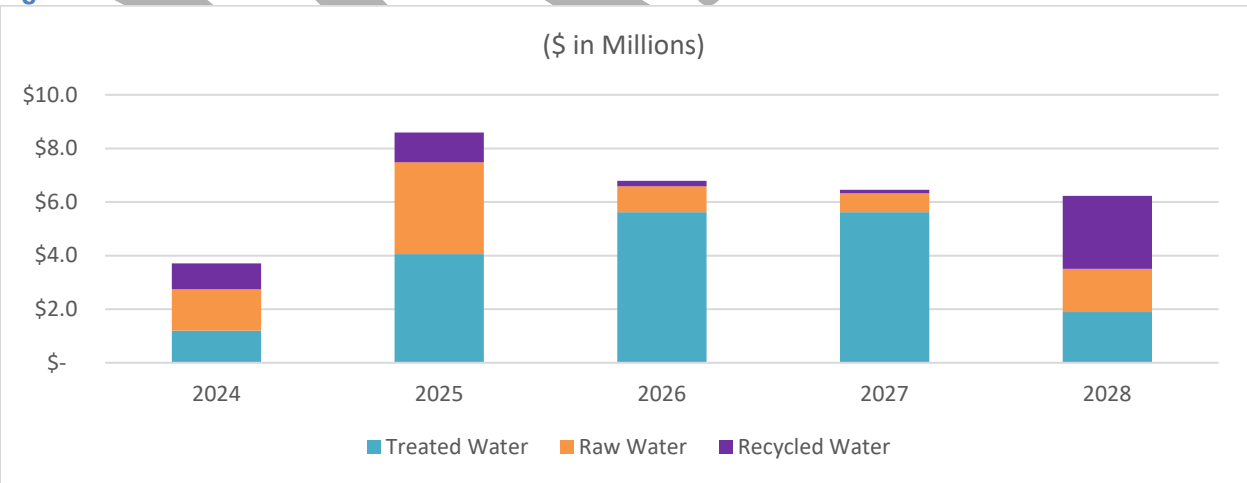


Notes: SVA = Silicon Valley Advanced Water Purification Center; PWTP = Penitencia Water Treatment Plant; STWTP = Santa Teresa Water Treatment Plant; RWTP = Rinconada Water Treatment Plant; CPP = Coyote Pumping Plant; PPP = Pacheco Pumping Plant

FY2024 – FY2028

Figure 2 summarizes costs of projected asset renewal projects to be completed in fiscal years 2024-2028 (FY24-28). Over the next five fiscal years, Valley Water estimates $31.8 Million of planned asset renewal work.

Figure 2: Forecasted FY24-28 WUE OMP Work



Note: In this chart, project costs are grouped by facility category rather than individual facility. Raw Water = Raw Water facilities including pipelines, pump stations, and pond systems. Treated Water = Penitencia, Rinconada, and Santa Teresa Water Treatment Plants. Recycled = SCRWA system and Silicon Valley Advanced Water Purification Center

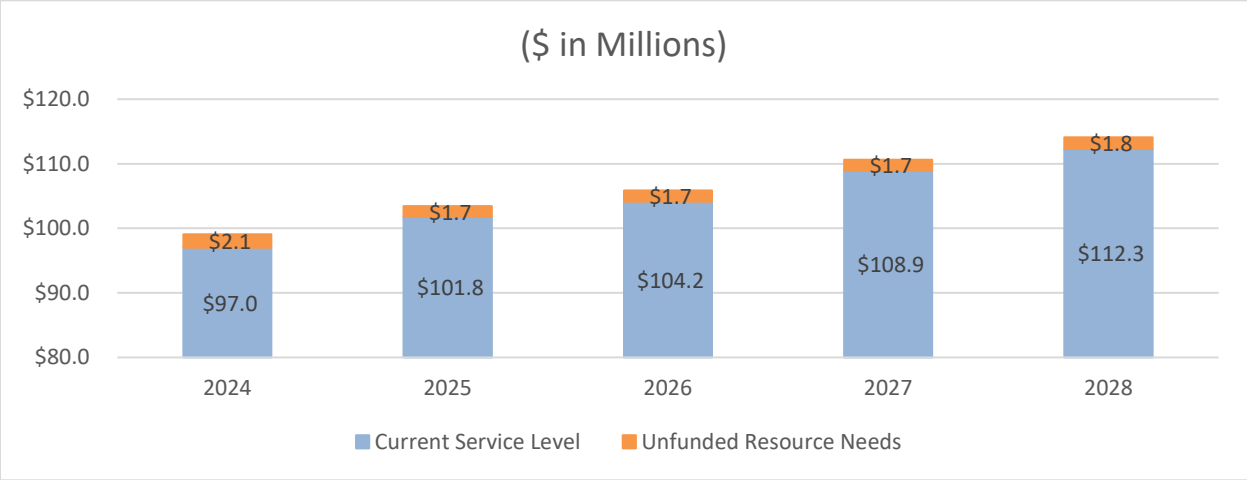
Review of Completed FY2022 Asset Renewal Projects (to be updated at the end of FY23)

To be updated at the end of FY23

Five-Year Operations Project Forecasts

Five-year forecasts of funding for baseline (current) service levels as well as future resource requirements which are not yet funded for the Water Utility Raw and Treated Water Operations Divisions are shown in Figure 3. The Draft report is prepared using long term forecast data and unfunded needs requests as of December 2022. ***The FY24-25 budget requests and unfunded needs are preliminary, and will be evaluated throughout the budget and groundwater charge (rate) setting processes through May 2023.***

Figure 3: Raw & Treated Water Operation Division Forecasts



*Data as of October 18,2022

In total, the Raw and Treated Water Operations Divisions have budgeted baseline resource needs of $97 Million for current service levels for FY 2024, as well as identified $ 2.1 Million of remaining unfunded needs. The unfunded needs will be evaluated through the budget and groundwater charge setting process. The unfunded resources would provide for the following services:

- Support for laboratory operations and accreditation
- Support for Corrosion Control Cathodic Protection Program
- Support for Water Utility Maintenance Mechanical Engineering program
- Support for Water Quality program
- Support for Water Treatment Plant General Maintenance

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I. INTRODUCTION

Report Overview

The purpose of this plan is to provide a summary of activities and costs associated with operating and maintaining Valley Water's Water Utility Infrastructure for the next five fiscal years. Specifically, this plan:

- Documents the baseline and unfunded operations and maintenance project resource needs for the Raw and Treated Water Operations Divisions for the next five fiscal years, 2024 to 2028, and provides an explanation of unfunded needs.
- Identifies the water utility planned asset renewal projects scheduled for the next five fiscal years, 2024 to 2028, and provides guidance for planning, scheduling, and budgeting this work in Valley Water's operations or capital budgets.
- Provides a summary of asset renewal work completed in the prior fiscal year 2023.

This is a rolling five-year plan that is updated annually. In the past, Valley Water's Water Utility developed three separate plans that have now been combined into this Water Utility Enterprise Operations and Maintenance Plan (WUE OMP). The three plans were:

- Five-Year Operations and Maintenance Plan: Documented five-year forecasts of all Water Utility operations project costs and unfunded needs
- Five-Year Maintenance Work Plan: Identified asset renewal projects for the coming five fiscal years
- Maintenance Work Plan Review Report: Summarized asset renewal projects completed in the prior fiscal year

Water Utility (WU) O&M activities are carried out to meet the following Board of Directors' (Board) Ends Policies:

- Ends Policy E-2: Valley Water provides a reliable, safe, and affordable water supply for current and future generations in all communities served.

The WU Raw and Treated Water Operations Divisions achieve the Board's Ends Policies by:

- Monitoring and protecting the groundwater basins.
- Conveying local and imported source water to water treatment plants, recharge facilities, and streams.
- Treating and delivering water to retail customers.
- Maintaining the infrastructure needed to conduct the above listed activities.
- Ensuring services are carried out in way that protects the environment.

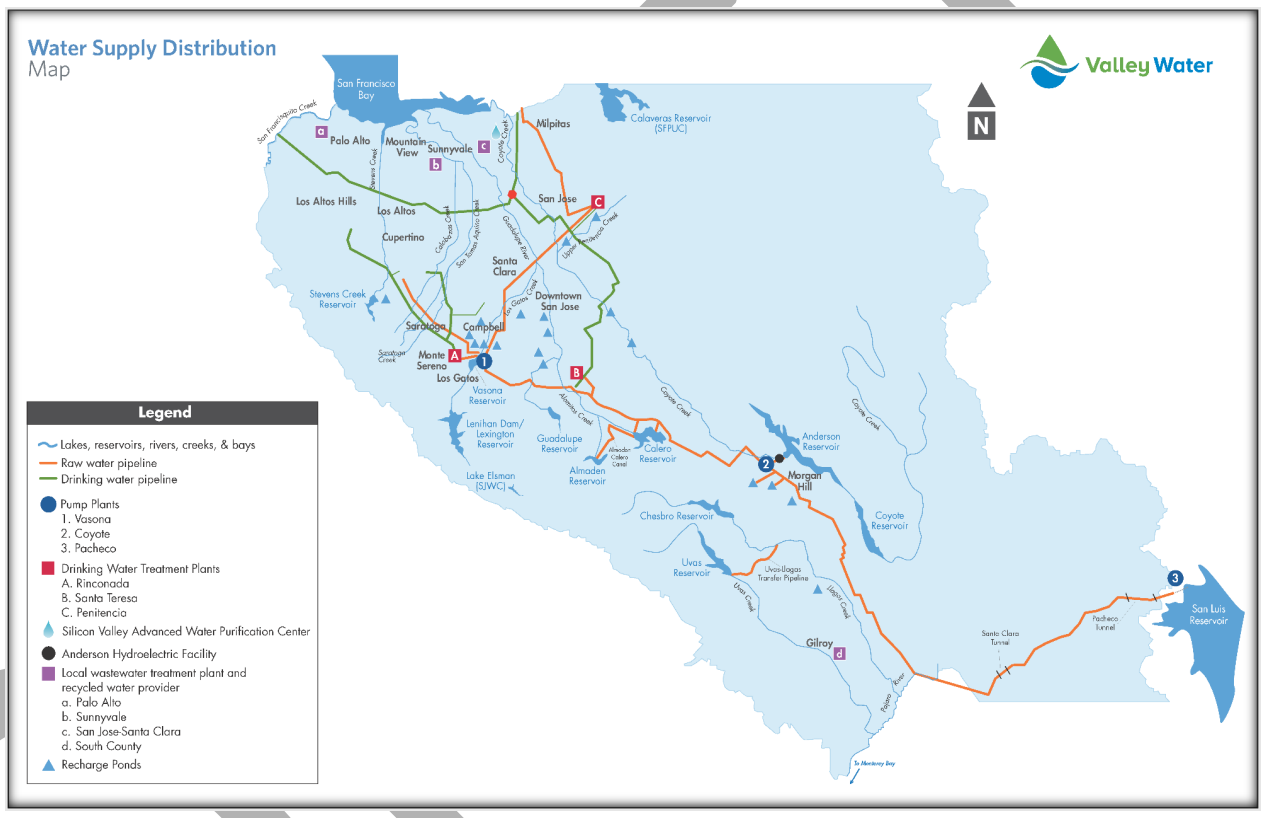
Copies of past years' reports are available on the Valley Water intranet on the asset management web site at http://www.aqua.gov/asset-management-library.

Water Utility Infrastructure

Valley Water manages an integrated water resources system to provide a supply of clean, safe water, flood protection, and stewardship of streams in Santa Clara County (County). Valley Water operates and maintains complex infrastructure and integrates natural and constructed systems to capture, treat and convey raw and treated water for a reliable water supply. Valley Water's system delivers about 300 million gallons of raw water and 200 million gallons of treated drinking water every day (subject to water demand and hydrologic changes).

Valley Water's Water Utility infrastructure includes the following, shown on the map below:

- 10 surface water reservoirs and outlet works
- 10 miles of raw surface water canals (excludes inactive canals)
- 285 acres of groundwater recharge ponds
- 98 miles of controlled in-stream recharge
- 150 miles of raw, treated, and recycled water pipelines
- 3 pumping raw water stations
- 1 hydroelectric facility
- 3 drinking water treatment plants
- 1 advanced water purification center



Related Documents

Documents related to this plan include:

- FY24-28 Capital Improvement Program (CIP): The CIP is a rolling five-year plan that identifies major capital improvements. This WUE OMP feeds directly into the CIP, as it identifies the scope and costs of five Water Utility small capital improvement projects, as well as identifies upcoming large or individual capital projects. The CIP includes master planning efforts that will further define future asset renewal needs for the Water Utility: Water Treatment Plant Implementation Plan, Distribution System Implementation Plan, and the SCADA System Implementation Plan. These plans will identify major future infrastructure improvements for Water Utility infrastructure.

- FY24-28 Watersheds Operation and Maintenance Plan: The Watersheds Operations and Maintenance Plan is a rolling five-year plan that describes operations and maintenance activities for

the Watershed Operations and Maintenance Division for the next five years. It is similar to this WUE OMP FY24-28.

- FY24-39 Long-Term Forecast: The long-term forecast is prepared as the first step of the budget process each year to forecast future funding needs for operations projects. This WUE OMP links to the long-term forecast in two ways. First, it identifies asset renewal costs for the next five years, which is incorporated into long-term forecast for appropriate projects. Second, the operations project five-year forecasts provided in this report are taken from the long-term forecast data. The draft report is prepared using long-term forecast data and unfunded needs requests as of December. The budget requests and unfunded needs are further evaluated throughout the budget and groundwater charge (rate) setting processes through May.

- FY24 & FY 25 Operating and Capital Budget: Valley Water's budget is produced bi-annually to identify the planned operations and capital expenditures and funding sources for the coming fiscal year. It provides an overview of both operations and capital expenses, as well as revenues, for the next fiscal year. This WUE OMP identifies both operations and capital expenditures that are included in the Operating and Capital Budget.

- Protection and Augmentation of Water Supplies (PAWS) Report: The PAWS report is produced each year in accordance with requirements in the District Act section 26.5, and documents the activities undertaken to provide a reliable, clean water supply for the coming fiscal year as a basis for the proposed maximum groundwater production charges. It provides an overview of both operations and capital expenses for the next fiscal year while this plan provides an overview of selected operations and maintenance activities for the next five fiscal years.

II. OVERVIEW OF O&M ACTIVITIES

The Water Utility plans, budgets and executes operations activities in operating projects, and plans, budgets, and executes maintenance work through both operations and capital projects. This section provides an overview of O&M activities and explains what type of work is budgeted in operations projects and what type of work is budgeted in capital projects.

Operations Project Activities

General descriptions of activities budgeted in Water Utility operations projects are provided below. Section IV of this plan provides additional detail on the operations projects and includes a five-year forecast of the projects in which this work is planned, budgeted, and executed.

Operations: Operations activities include operating 150 miles of large diameter transmission pipelines, three pumping plants, 102 ponds used to recharge the groundwater basins, three potable water treatment plants, one well field, and one advanced water purification center. Costs associated with operating these facilities include operator labor, chemical costs, power costs, laboratory operations, and water quality support. Costs associated with these operations activities are budgeted in the operations projects presented in Section V of this plan.

General Maintenance: General maintenance activities include the following, which account for the majority of maintenance labor. These activities are budgeted in the operations projects presented in Section V of this plan:

- *Preventive Maintenance (PM)*: Planned routine maintenance to prevent premature asset failure, such as an oil change or calibration. PM activities occur weekly, monthly, quarterly, semi-annually, or annually, depending on the activity. When a PM work task becomes due for an asset, Maximo (Valley Water's computerized maintenance management system or CMMS), automatically generates a work order for maintenance staff to perform the task. The water utility completes approximately 14,000 PM work orders each year. PM work accounts for approximately 80% of maintenance labor hours.

- *Corrective Maintenance (CM)*: Corrective maintenance addresses unplanned asset failures. CM work accounts for approximately 10% of maintenance labor hours.

- *Inspections and Testing*: Projects that involve inspection or testing activities are not capital investments. They are budgeted and conducted under one of the maintenance operating projects identified in Section V of this plan. Biennial electrical testin
- g or chemical tank inspection are examples of activities budgeted under operating projects. These projects are completed by maintenance staff and may require engineering, environmental and/or contractor support. These projects are identified through the maintenance work plan process described in Section III of this plan.

Engineering Support: Engineering support is needed for various operations initiatives, operations planning, and maintenance projects. Civil, mechanical, electrical and control systems engineers support the operations and maintenance of the Water Utility facilities. Engineering support is budgeted in the planning and engineering projects presented in Section V of this plan.

Capital Project Activities

Maintenance work that involves rehabilitation or replacement of an asset or group of assets is budgeted in small or individual capital projects, as described below. This type of work extends the life of an asset and therefore is capitalized. Asset rehabilitation and replacement work is identified through the maintenance work planning process described in Section III of this plan.

Small Capital Projects: Projects that involve replacement or rehabilitation of a single asset, such as a single pump re-build, are budgeted and executed in the Water Treatment, Treated Water Transmission, Raw Water Transmission, or San Felipe Reach 1-3 Small Capital Improvement Projects in Valley Water's five-year CIP. The scopes of each of the Small Capital Improvement Projects change annually based on the work identified in this Plan. These projects are completed by maintenance staff or contractors. They may require engineering and environmental support thus may need to be competitively bid.

Individual Capital Projects: Occasionally, projects can be grouped together to create an individual capital project. In such case, staff initiates a new project in the CIP. On average, one new capital project is identified through the asset renewal planning process each year. One example is the Vasona Pumping Plant Upgrades, which is a project in Valley Water's current five-year CIP. Several pumps, motors, drives, valves, and other equipment within the pump station were due for replacement in 2016. The multiple asset replacements were combined into one project, to be executed under the CIP.

In addition, the pipeline inspection and rehabilitation projects are identified through the maintenance work planning process. These projects are budgeted and executed in the Ten-Year Pipeline Rehabilitation Capital Project.

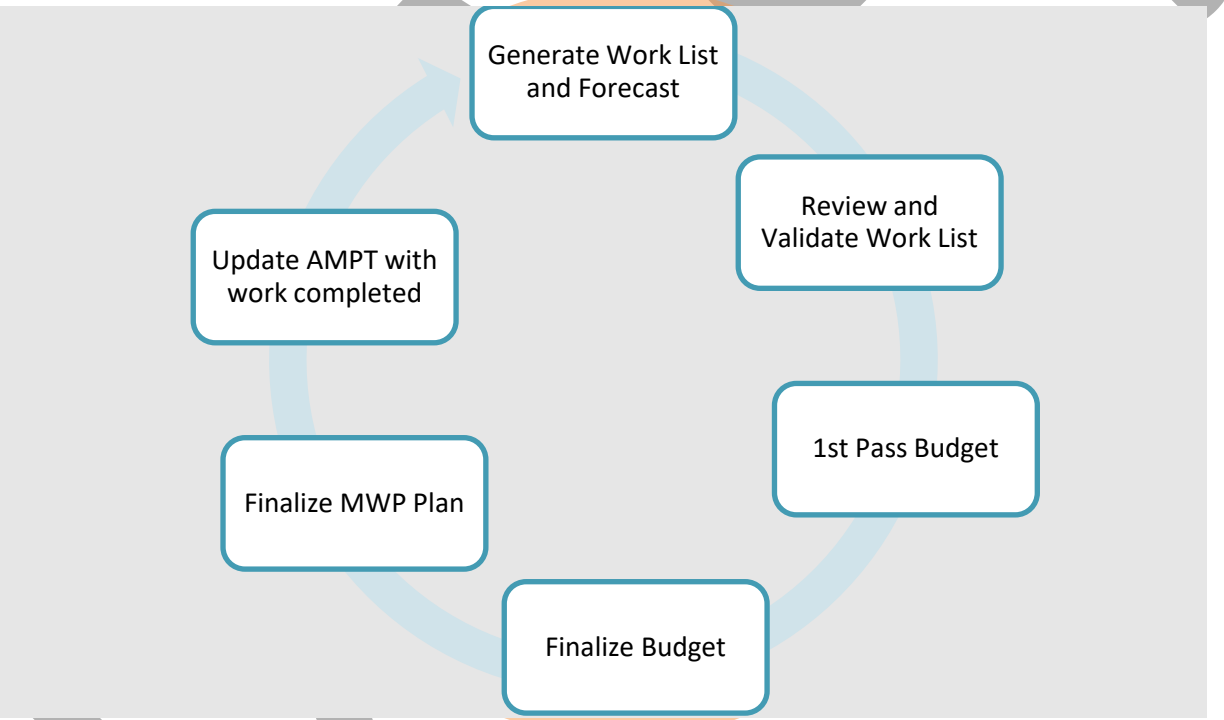
III. WORK PLANNING AND EXECUTION

Work Planning

The Asset Management Program develops forecasts of asset renewal activities and costs using a software tool, Asset Management Planning Tool (AMPT). AMPT contains the database of water utility assets and their planned renewal activities and costs. Asset renewal activities are planned at specific intervals, such as every 5 or 10 years, and are validated as the due dates approach.

Each year, staff generates a list of all renewal activities required for water utility assets for the next five years from the AMPT database. Operations, maintenance, engineering, and asset management validate the list by evaluating field condition and estimated remaining asset life. If assets are found in good condition, renewal projects are rescheduled to future years. The renewal projects are selected to optimize asset performance, maintain, or improve reliability within an acceptable risk tolerance, and to minimize asset life-cycle costs.

Work is planned annually, according to the diagram below, to align with the budget process.



Assets Excluded from the Work Planning Process

The following assets are excluded from the work planning process:

- An asset that has a value less than $2,500 or is not critical for performance
- An asset that is easily accessible (e.g., spare kept on the shelf)
- An asset that is replaced if it fails calibration
- Consumable assets (e.g., air filters)

The following table shows the assets that are not included in the work planning process:

Asset Class	Asset Type
Mechanical	Sump pumps, transfer pumps, metering pumps, sludge pumps and motors, sample pumps, air pressure regulating valve[1] , leak detectors[2]
Instrumentation	Analyzers, turbidimeters, level instruments/indicators, portable leak detectors, wet well float switch, staff gauges, mass flowmeters
Civil	Pump out risers, manholes, drain valves, water supply trash racks, underground petroleum storage tanks[3]

Notes

[1] Ozone air pressure regulating valves are included

[2] Leak detectors preventative maintenance is scheduled and replaced if not functioning.

[3]These tanks are inspected annually and maintained by a trained and certified contractor. These tanks and their appurtenances are not maintained by Valley Water Staff.

Work Execution

Execution of the asset renewal projects is predominately performed through the following units:

- Treatment Plant Maintenance Unit (555)
- Raw Water Field Operations and Pipeline Maintenance Unit (585)
- Additional technical support is provided by
    - Raw Water & Pipeline Maintenance Engineering (435)
    - Raw Water Operations Unit (455)
    - Plant Maintenance Engineering and Commissioning Unit (516)
    - Utility Electrical and Control Systems Engineering Unit (545)
    - Other Valley Water units including Watershed Field Operations units, Facilities management and the Environmental Health and Safety Unit.
    - Outside contractors are used as needed.

IV. PLANNED ASSET RENEWAL WORK

This section provides an overview of planned work for the next five fiscal years. Section II of this plan describes how this work is budgeted in operations or capital projects and Section III of this plan describes the work planning process.

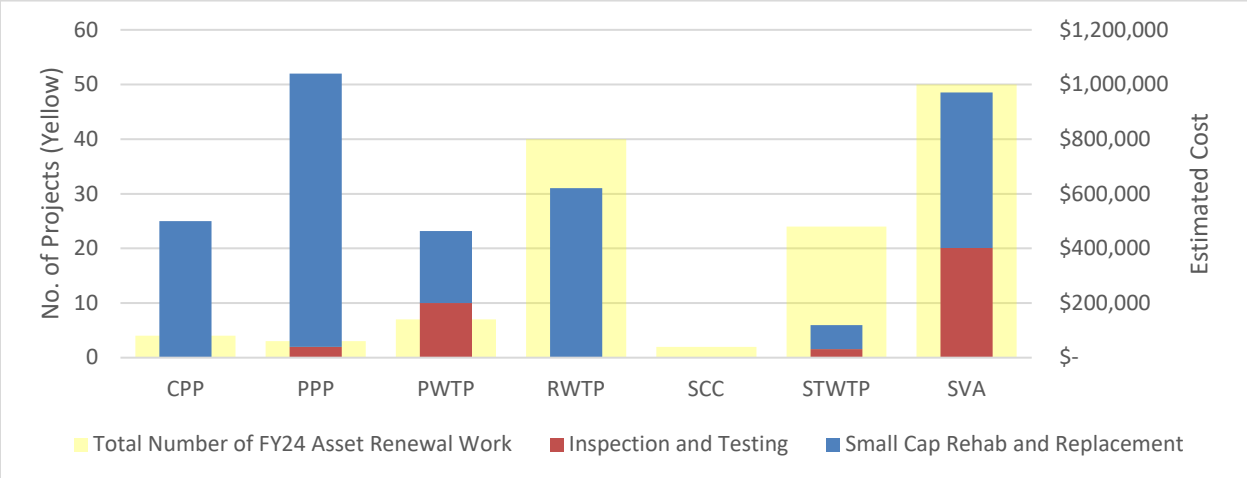
FY 24-28 Planned Asset Renewal Work

The key output of the work planning process is the list of asset renewal work to be conducted over the upcoming five fiscal years. The work identified in this process is incorporated into capital and operations budgets as described in Section II. The work list for the upcoming fiscal year FY24 is fixed, whereas the work listed for the remaining four years of the five-year rolling plan is adjusted based on changing conditions.

FY24 Summary

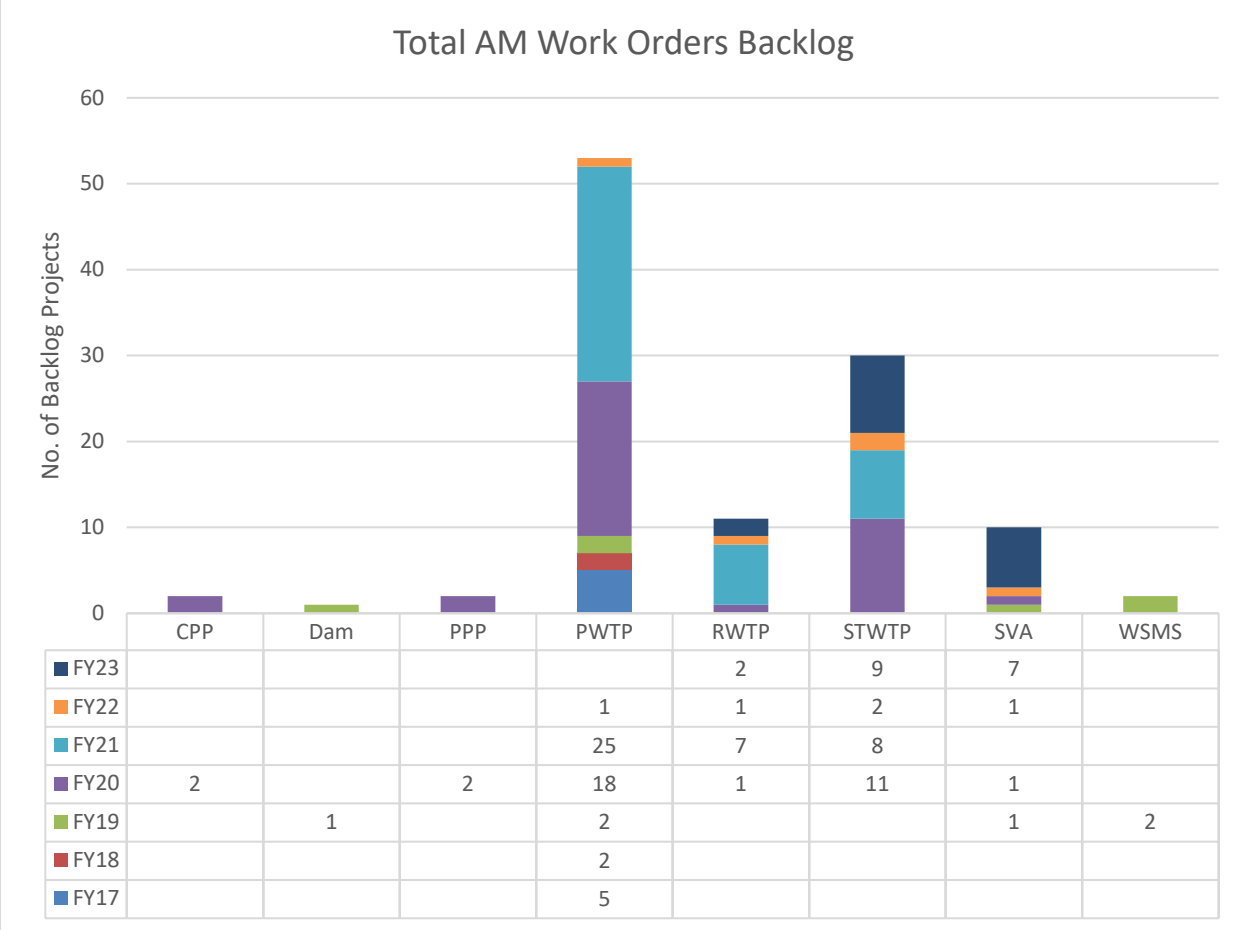
For FY 2024, a total of 102 asset renewal projects were identified, with an estimated total cost of $3.7 Million. Note this cost includes materials and equipment plus a multiplier for labor and installation costs. In addition to projects identified for FY 2024, staff continues to work on projects identified in prior years. These projects are referred to as "backlog work". There are a total of 111TBD backlog projects from prior years FY16-23 that staff continues to work on as of November 9,2022. Figures 4 and 5 provide information about FY24 Planned work and backlog. As shown in Figure 5, many backlog projects are from FY20 and FY21. Many asset renewal projects did not get completed these years due to COVID-19.

Figure 4: FY24 WUE Planned Asset Renewal Work



Note: See Table of Acronyms for Facility Names

Figure 5: WUE Planned Asset Renewal Work Backlog



	CPP	Dam	PPP	PWTP	RWTP	STWTP	SVA	WSMS
FY23					2	9	7	
FY22				1	1	2	1	
FY21				25	7	8		
FY20	2		2	18	1	11	1	
FY19		1		2			1	2
FY18				2				
FY17				5				

Note: See Table of Acronyms for Facility Names *Data as of October 19,2022.

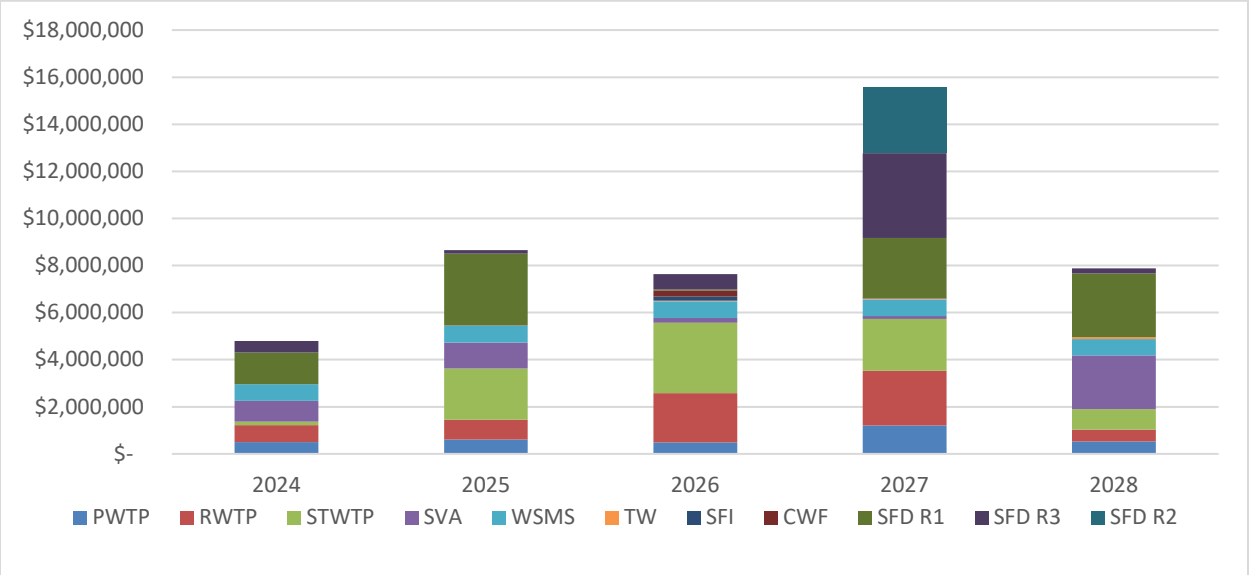
FY2024 – 2028 Summary

Figures 7 through 16 summarize the projected asset renewal projects to be completed in future fiscal years, 2024-2028. The project costs provided in the figures include equipment and material costs. Labor costs are included as a multiplier of the equipment and material costs. The total project costs over five years is $31.8 Million.

Expanding the horizon from a single year to five-years allows staff to review the workload by year and see trends and peaks in workload, asset class, or facility. This also provides staff with an opportunity to look for efficiencies and balance the work between the years.

Asset renewal work for the raw and treated water pipelines for FY 2024 - 2027 is included in the 10-year Pipeline Rehabilitation Project, which is a capital project and included in Valley Water's five-year CIP. Because the costs are included in the CIP, forecasts are not included in this plan. There is, however, a summary of planned pipeline rehabilitation work that will be done as part of the 10-year Pipeline Rehabilitation Project included in the section following figures 6 -16. Also note that Anderson Hydroelectric is planned to be decommissioned. No asset renewal work is scheduled in FY24-28 and therefore there is no forecast for the facility in this plan.

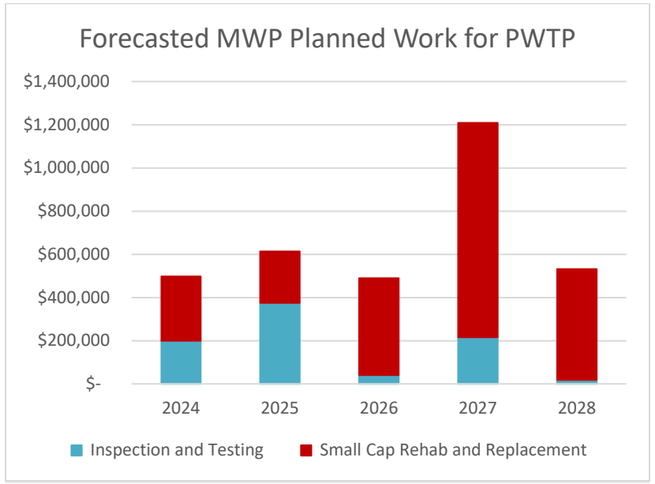
Figure 6: Five-year Forecasted Projects



Note: See Table of Acronyms for Facility Names

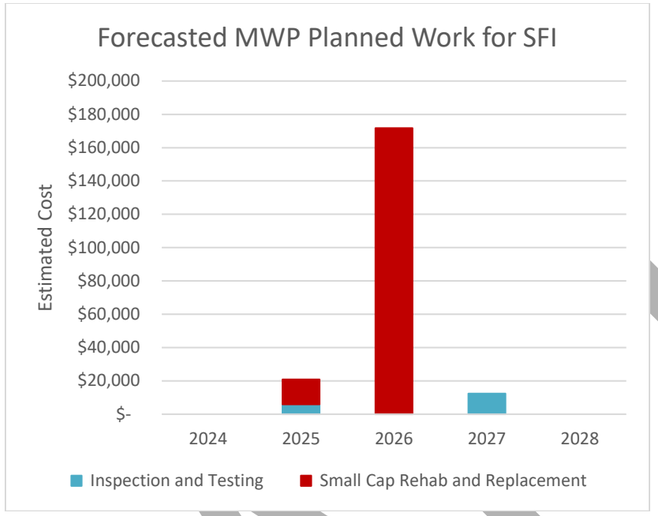
All replacements are pending condition assessment. Replacement activities may be replaced with rehabilitations.

Figure 7: Penitencia Water Treatment Plant (PWTP) FY24-28 Planned and Forecasted Work



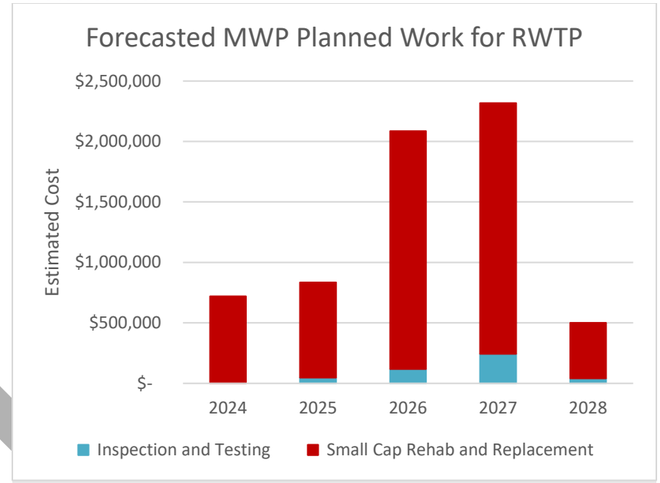
Year	Most Expensive Planned Work for PWTP
2024	-Maintenance and inspection of the Clearwell ($200k) -Replacement of the Phosphoric Acid flow meter (~6k) -Clean and Coat 3 Alum Tanks ($7k total)
2025	-Replacement of Dutard Pump #1 (~53k) -Replacement of Plant Water #2
2026	-Replacement of OCL tank liner in tank #2 (`$33k) -Replacement of Non-Ionic Poly, carbon, ammonia, and sulfuric acid metering pumps ($9k each 9 total) -Replacement of filter flow meters ($6k each 6 total)
2027	-Replacement of PWTP Flocculator drive units ($25k each 9 total) -Replacement of Plant Water piping, Domestic water piping (~$90k) -Replacement of various filter valves ($7k each for 14 total)
2028	-Replacement of PAC dust collectors ($44k each 2 total) -Replacement of OCL storage tank transfer pumps (~$36k each 3 total)
Note: The following assets replacements are not included in the MWP forecast: -Motor control centers included in the WTP Electrical Improvement Project (Capital Project estimated in FY25)	

Figure 8: San Francisco Intertie (SFI) FY24-28 Planned and Forecasted Work



Year	Most Expensive Planned Work for SFI
2024	
2025	-Replacement of SFI station transformer and main control panel (~$6k and $15k respectively)
2026	-Replacement of SFI manifold 42-inch butterfly valves operators ($24k each 6 total)
2027	-Inspection of SFI Phosphoric acid tank
2028	

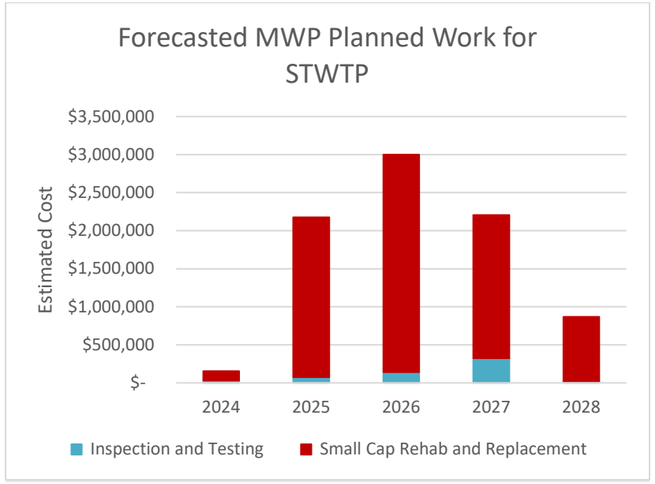
Figure 9: Rinconada Water Treatment Plant (RWTP) FY24-28 Planned and Forecasted Work



Year	Most Expensive Planned Work for RWTP
2024	-Rebuild of More Ave Pump #2 (~$65k) -Rebuild of centrifuges (~$80k each 2 total)
2025	-Replacement of the RWTP TW Booster #1 Pump and Motor (~$250k) -Replacement of OCL tank #2 liner (~$33k)
2026	-Replacement of RWTP Warehouse Fire Sprinklers (~$667k) -Replacement of the RWTP TW Booster #2 Pump and Motor (~$250k) -Replacement of chemical piping (~$250k) -Replacement of OCL tank #1 liner (~$33k) -Replacement of PAC injection line (~$12k)
2027	-Replacement of RFM guard valve (~$288k) -Replacement of some trailers (~$150k each 2 total) -Replacement of various UPS (~$80k each 4 total) -Replacement of Backwash motor and More ave motor (~$80k each 2 total)
2028	-Replacement of trailer (~$150k each 1 total) -Replacement of Standby air compressor generator ($37k) -Replacement of clearwell bypass valve ($24k)
Note: RWTP projected planned work is anticipated to change once AMPT is updated with the newly installed assets per the CIP project. AMPT has been updated with RWTP new assets starting in FY22 and will continue until the CIP completion.	

All replacements are pending condition assessment. Replacement activities may be replaced with rehabilitations.

Figure 10: Santa Teresa Water Treatment Plant (STWTP) FY24-28 Planned and Forecasted Work

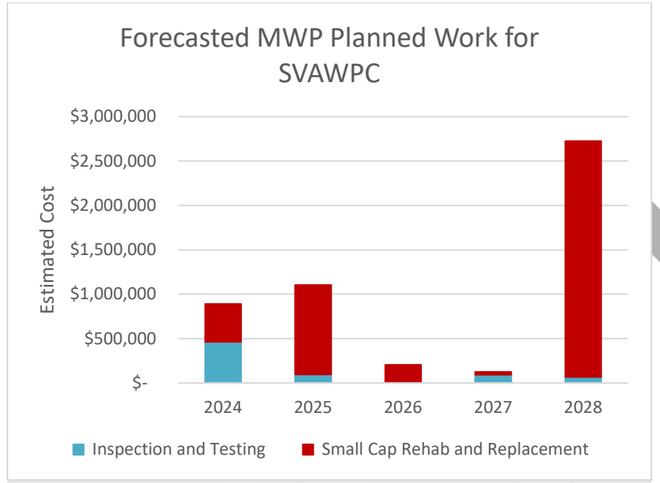


*Includes Graystone pumping station projects

Year	Most Expensive Planned Work for STWTP
2024	
2025	-Replacement of Ozone generator power supplies (~$180k 3 total) -Replacement of WWC floc mixer (~$80k) -Replacement of #1E rake, chain, and flights (~$71k)
2026	-Replacement of WWC floc mixers (~$80k 2 total) -Replacement of Liquid Oxygen Vaporizers (~$53k 3 total) -Replacement of WWC return pump #1 (~$52k)
2027	-Replacement of Backwash pump #9 (~190k) -Replacement of WWC floc mixers (~$80k 2 total) -Replacement of Floc Mixers (~$56k each 15 total) -Inspection of the Ozone Generation East and West Contactor (~$133k each) -Replacement of Carbon Dust Collector (~$38k each 2 total)
2028	-Replacement of Washwater Recovery Pump (~$95K 3 total) -Replacement of UPS system in Operations room (~$80k) -Replacement of WWC floc mixers (~$80k)
Note: The following assets replacements are not included in the MWP forecast: -Replacement of Filter Media and Filter valves (Capital Project)	

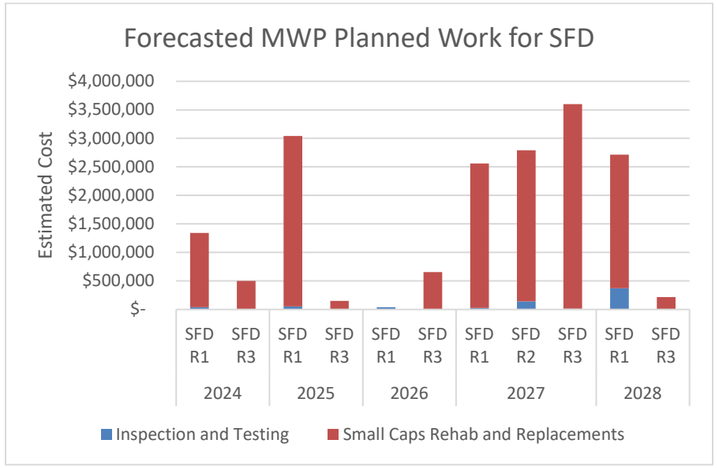
-Motor control centers included in the WTP Electrical Improvement Project (Capital Project estimated in FY24)

Figure 11: Silicon Valley Advanced Water Purification Center (SVAWPC) FY24-28 Planned and Forecasted Work



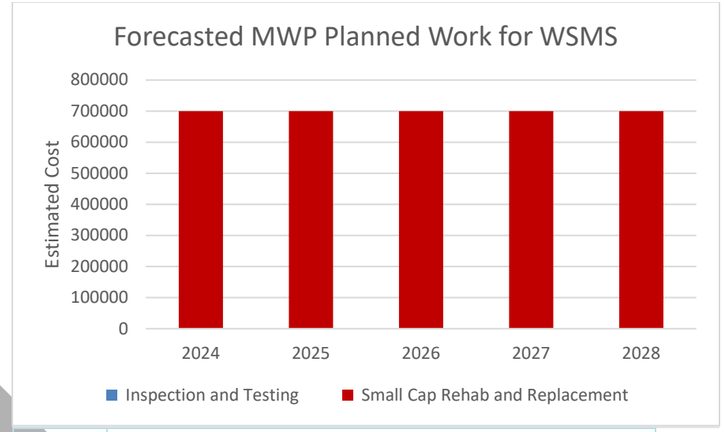
Year	Most Expensive Planned Work for SVAWPC
2024	
2025	-Rehabilitation of fire protection pump (~$28k) -Rehabilitation of flush pump (~$28k) -Inspection and refurbishment of wiper control panels (~$15k each 12 total)
2026	-Rehabilitation of Threshold Inhibitor tank mixer (~80k) -Rehabilitation of MF Reverse supply pump #2 (~2$8k) -Replacement of Potable Water 12" overflow valve (~$12k)
2027	-Replacement of turbidity meters (~$7K 2 each) -Inspection of chemical tanks
2028	-Replacement of RO cartridge filters ($104k each 3 total) -Replacement of autostrainers (~$12K each 3 total) -Replacement of various plant and chemical piping scheduled for every 15 years (~$468k total)

Figure 12: San Felipe Division Reach 1-3 FY24-28 Planned and Forecasted Work



Year	Most Expensive Planned Work for SFD
2024	R1 -Rehabilitation of PPP Pump Unit (~$1.32M) -PPP Pump and Motor condition assessment (~$30K) R3: -Rehabilitation of CPP Pump Unit (~$150k)
2025	R1 -Rehabilitation of PPP Pump #1-12 Motors (~$236k each) -PPP Pump and Motor condition assessment (~$30K) R3 -Rehabilitation of CPP Pump Unit (~$150k) -Replacement of Coyote Pump Office Trailer #1 (~$124k)
2026	R1 -Replacement of PPP Regulating Tank External CP Rectifier Anode Bed (~$226k) -Inspection of Pacheco Regulating Tank (~$28k) -PPP Pump and Motor condition assessment (~$30K) R3 -Rehabilitation of CPP Pump Unit (~$150k) -Replacement of Coyote Pump Isolation Control Valves #3&4 (~$92k each)
2027	R1 -Replacement of PPP Mech and HVAC Gallery Chillers CH-1&CH-2 (~$313k each 2 total) -PPP Pump and Motor condition assessment (~$30K) R2 -Rehabilitation of SCC Fault Crossing Pipe (~$1.8M) R3 -Rehabilitation of CPP Pump Unit (~$150k) -Replacement of CPP Distribution Panelboard DNA Transformer (~$1.1M)
2028	R1 -Replacement of PPP AC motor units (~$63k each 3 total) Replacement of office trailers (~$146k each 2 total) -PPP Pump and Motor condition assessment (~$30K) R3: -Replacement of cooling water supply pumps and motors (~$10k each 4 total)
Note: The following assets replacements are not included in the MWP forecast: -Pipeline inspection and rehabilitations for SCC per the 10-year Capital Pipeline Rehabilitation project Scheduled in FY23: Pacheco Tunnel Reach 2, PSV, Santa Clara Tunnel SCT to SV1, and Santa Clara Conduit. Santa Clara Tunnel SV1 to CPP and Coyote Discharge line -CPP ASD Replacement Capital project scheduled in FY23	

Figure 13: Water Supply Management System FY24-28 Planned and Forecasted Work



Year	Most Expensive Planned Work for WSMS
2024	-Pond Cleanings (~$500k) -Bring Ponds Back Up to As-built Levels (~$200k)
2025	-Pond Cleanings (~$500k) -Bring Ponds Back Up to As-built Levels (~$200k)
2026	-Pond Cleanings (~$500k) -Bring Ponds Back Up to As-built Levels (~$200k)
2027	-Pond Cleanings (~$500k) -Bring Ponds Back Up to As-built Levels (~$200k)
2028	-Pond Cleanings (~$500k) -Bring Ponds Back Up to As-built Levels (~$200k)
Note: Projects may be delayed a fiscal year due to material and shipment delays.	

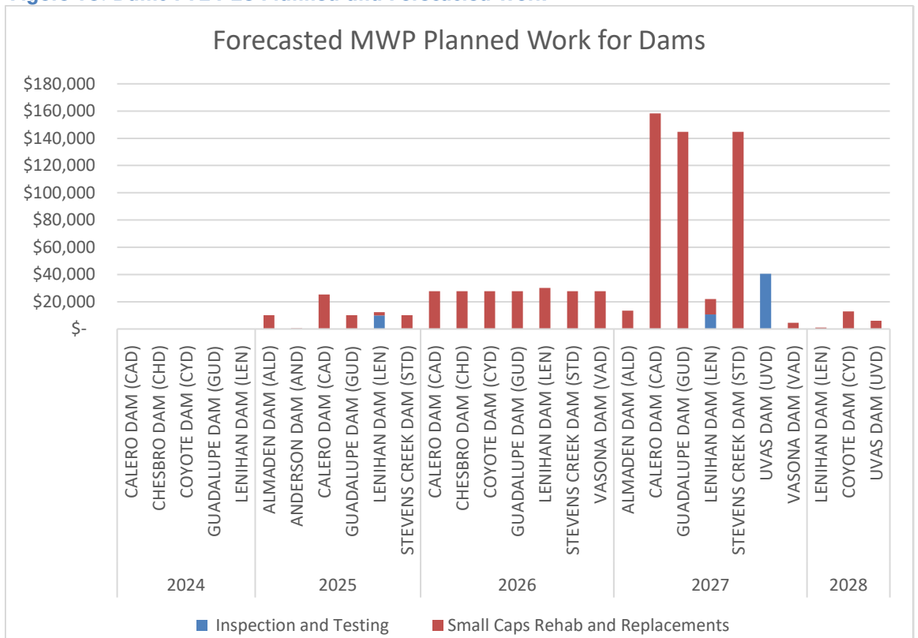
Figure 14: Recycled Water Distribution FY24-28 Planned and Forecasted Work

Year	Most Expensive Planned Work for Gilroy Reclamation Line
2024	- Condition Assessment Date TBD (~$44k)
2025	TBD
2026	TBD
2027	TBD
2028	TBD
Note: An inspection of a portion of the Gilroy Reclamation Line will be schedule during the South Country Recycled Water Pipeline Project (Capital Project). A contractor will conduct a condition assessment of the pipeline. In addition, a full condition assessment of the system will be completed soon. After these inspections, Asset Management will update the planned work.	

Figure 15: Vasona Pumping Plant (VPP) Facility FY24-28 Planned and Forecasted Work

Year	Most Expensive Planned Work for VPP
2024	-Electrical Testing (~$9k)
2025	TBD
2026	TBD
2027	TBD
2028	TBD
Note: Major replacements are scheduled for FY24-25 per Capital project Vasona Upgrade	

Figure 16: Dams FY24-28 Planned and Forecasted Work



Year	Most Expensive Planned Work for Dams
2024	
2025	-Replacement of ALD, CAD, & GUD Oxygenation Trailer RECIP Compressors (~$10k each)
2026	-Replacement of SCADA RTUs (~$195k each)
2027	-Replacement of CAD, GUD, & STD Oxygenation Trailers (~$131k each)
2028	-Replacement of Coyote Dam outlet valve (~$15k)
Note: The Five-Year MWP does not currently include rehabilitation or replacements recommended by the State of California Division of Safety of Dams (DSOD) and Federal Energy Regulatory Commission (FERC). DSOD and FERC annual inspections identify required maintenance activities which Valley Water implements under its Dam Safety Program.	

Individual/Large Capital Project Recommendations

The work planning process recommends some activities for execution as individual or larger capital projects. Individual/large capital projects represent major work efforts that are beyond the capabilities of the maintenance units to perform and meet one of the following criteria: exceeds $5 Million, duration greater than 2 years, or requires right of way purchase. Generally, these projects require multi-year planning and extensive design efforts, which include preparation of plans and specifications for bidding.

No new individual Capital Projects have been identified for FY2024.

10-Year Pipeline Rehabilitation Project

As mentioned above, raw and treated water pipeline renewal work is included in Valley Water's five-year CIP in the 10-Year Pipeline Rehabilitation Project, and therefore forecasts of planned work are not included in this plan. Below is a list of currently planned work for the 10-Year Pipeline Rehabilitation Project.

FY24	• Santa Clara Conduit inspection and rehabilitation from SV1 to CPP • Snell pipeline inspection and rehabilitation from Aborn LV to STWTP
FY25	• West pipeline inspection and rehabilitation from RWTP to Cox
FY26	• West pipeline inspection and rehabilitation from Cox to Mountain View LV • AVP inspection and rehabilitation
FY27	• East pipeline inspection and rehabilitation from PWTP to Thompson LV
FY28	• Milpitas Pipeline inspection and rehabilitation • AVP inspection, rehabilitation, and CFRP repair from Coleman to Calero • AVP inspection, rehabilitation, and CFRP repair from Vasona to Calero • Santa Teresa Force Main Pipeline Inspection and Rehabilitation

Valley Water is undertaking infrastructure master planning efforts for its water treatment plants, distribution system, and SCADA system. These efforts will identify major facility renewal projects for future years. The projects that come from the master plans will likely be too large for maintenance to execute, and will be done as large/individual capital improvement projects.

Planned Work Tracking

Actual scheduling, execution, and reporting on the planned asset renewal projects are primary responsibilities of the assigned units' work within the Maximo work order system. These units communicate the status to Asset Management Unit, which performs QA/QC and reviews at the close of each fiscal year to assess what work was successfully completed. The Asset Management Program tracks asset renewal that is not undertaken since it increases the risk of asset failures.

A review of competed asset renewal work planned for FY23 is provided in Appendix B.

V. FIVE YEAR OPERATIONS FORECASTS

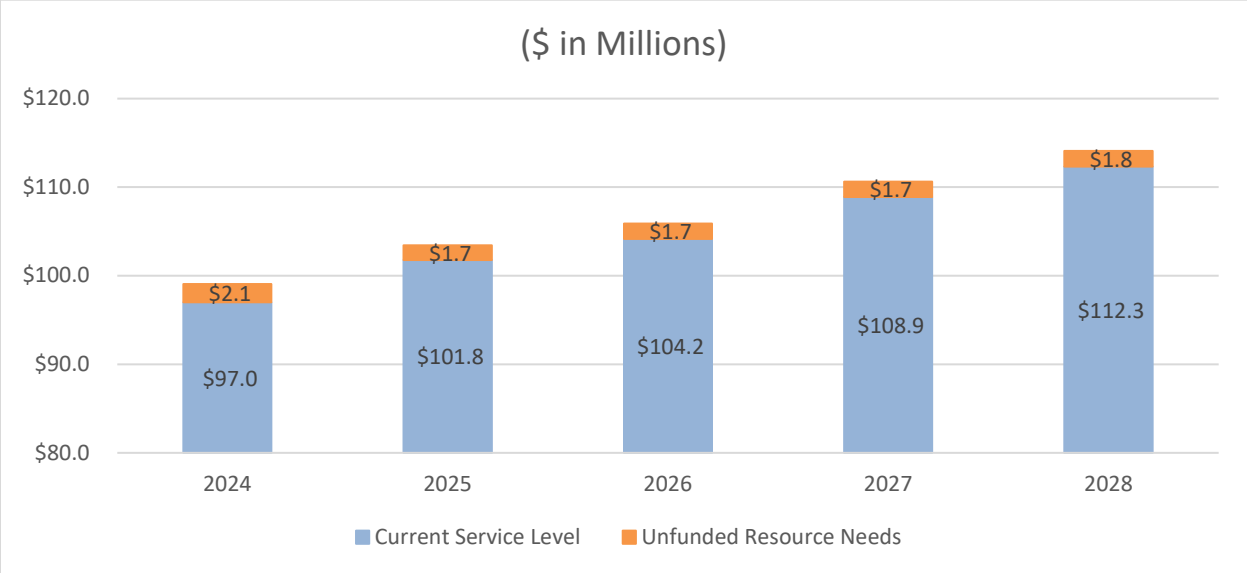
This section provides an overview of the expected operations expenses and unfunded needs for the operations and maintenance activities conducted by the Raw and Treated Water Operations Divisions for the next five fiscal years. These two Divisions are responsible for operations and maintenance of Valley Water's water supply, treatment, and distribution system. The types of activities budgeted in the projects presented in this section are described in Section II.

The Draft report is prepared using long term forecast data and unfunded needs requests as of December 2022. ***The FY24 budget requests and unfunded needs are preliminary, and will be evaluated throughout the budget and groundwater charge (rate) setting processes through May 2023.*** The plan is finalized following Board adoption of Valley Water's final budget and groundwater production charges. The final plan will document the final budgeted amounts for each project for FY24-25 as well as any remaining unfunded needs following the budget and groundwater charge setting process. Throughout the plan, the term 'baseline' refers to activities that maintain current service levels and are assumed to be funded in fund forecasts prepared by Valley Water's Financial Planning and Management Services Division**.**

The sections below provide an overview of the Raw and Treated Water Division Units, as well as tables and charts which summarize expected operations expenses and unfunded operations resource needs for fiscal years 24-28.

A summary of the five-year forecasts of funding for current service levels as well as future resource requirements which are not yet funded for the Raw and Treated Water Operations Divisions are shown in the chart below.

Figure 17: Raw & Treated Water Operation Division Forecasts*



*Data as of October 18,2022.

In total, the Raw and Treated Water Operations Divisions have identified baseline resource needs of $97 Million for Fiscal Year 2024 for current service levels, as well as $2.1 Million of unfunded resource needs. Additional details on these unfunded resource requests are provided below. The additional requested resources would provide the following services:

- Support for laboratory operations and accreditation
- Support for Corrosion Control Cathodic Protection Program
- Support for Water Utility Maintenance Mechanical Engineering program
- Support for Water Quality program
- Support for Water Treatment Plant General Maintenance

Raw Water Division

The Raw Water Division maintains and operates 150 miles of large diameter transmission pipelines including 94 miles of raw water pipelines and tunnels, three pumping plants and 102 ponds used to recharge the groundwater basins. The use of local and imported raw water supplies are maximized to meet treated water, groundwater recharge, and environmental needs.

Unit 408 is this Division's organizational unit and consists of the Deputy Operating Officer and one Administrative assistant. This Division manages one project in addition to the Units listed below: 91211005 – SFD Reach 1 Administration. The following Units are included in this Division:

Raw Water & Pipeline Maintenance Engineering (Unit 435)
The Raw Water & Pipeline Maintenance Engineering Unit provides civil and corrosion control engineering and support services for all Water Utility facilities; monitor and maintain pipeline condition assessment equipment (Acoustic Fiber Optic, Transient and Cathodic Protection monitoring); support 10-Year Pipeline Rehabilitation Program; and support O&M, Asset Management, General Engineering, CIP and Small Cap work requests.

Raw Water Operations (Unit 455)
The Raw Water Operations Unit performs the day-to-day operations planning and remote operations of Valley Water's Raw Water System consisting of:

- 10 water supply reservoirs with a combined restricted storage capacity of about 62,362 acre-feet.
- 3 Raw Water Pump Stations with over 37,000 combined horsepower.
- 1 hydroelectric facility.
- 94 miles of large diameter raw water pipelines and tunnels.
- 102 groundwater recharge ponds.
- 98 miles of streams managed for groundwater recharge.

The Unit also performs the required water right and regulatory compliance reporting to maintain and protect local water supply operations.

Groundwater Management (Unit 465)
The Groundwater Management Unit helps ensure continued groundwater sustainability by providing accurate and timely information on current and forecasted groundwater conditions; ensuring continued Valley Water compliance with California Water Code Sustainable Groundwater Management Act (SGMA) requirements; and implementing programs to protect groundwater resources.

Treatment Plant Maintenance (Unit 555)
The Treatment Plant Maintenance Unit conducts preventive, corrective and rehabilitative maintenance required to sustain operations of the Santa Teresa Water Treatment Plant, Penitencia Water Treatment Plant (PWTP), Rinconada Water Treatment Plant (RWTP), Campbell Well Field, and San Francisco Intertie.

Raw Water Field Operations and Pipeline Maintenance (Unit 585)
The Raw Water Field Operations and Pipeline Maintenance Unit is responsible for the mechanical, electrical, and control system preventive, corrective, and rehabilitative maintenance of the distribution

system infrastructure which includes three pump stations (Pacheco, Coyote, and Vasona) and 150 miles of pipeline. Also included is the operation of recharge and water distribution systems for groundwater basins, reservoirs, canals, and other water supply infrastructure.

Funding for current service levels as well as future resource requirements which are not yet funded for the operations projects managed by this Division are included in the tables below. The resource requirements and unfunded needs are summarized by project.

Resource Requirements for Current Service Levels*

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projected	FY25 Projected	FY26 Projected	FY27 Projected	FY28 Projected
Groundwater Management Program - 91041018	465	$ 5,466	$ 5,702	$ 5,982	$ 6,393	$ 6,413	$ 6,580
Hollister Groundwater Mgm - 60041003	465	$ 71	$ 73	$ 78	$ 135	$ 106	$ 86
Raw Water Corrosion Control - 92781002	435	$ 733	$ 905	$ 853	$ 882	$ 909	$ 936
Raw Water T&D Eng Other - 92761083	435	$ 1,686	$ 1,632	$ 1,719	$ 1,777	$ 1,832	$ 1,886
SF Reach 1- Engineering - Other - 91211085	435	$ 528	$ 599	$ 380	$ 393	$ 404	$ 417
SF Reach 2- Engineering - Other - 91221006	435	$ 235	$ 479	$ 389	$ 403	$ 415	$ 427
SF Reach 3- Engineering - Other - 91231085	435	$ 138	$ 621	$ 398	$ 514	$ 530	$ 546
SFD Reach 1 Administration - 91211005	408	$ 12	$ 17	$ 18	$ 18	$ 19	$ 20
Treated Water T/D Corrosion - 94781001	435	$ 596	$ 758	$ 747	$ 772	$ 795	$ 819
TW T&D - Engineering - Other - 94761005	435	$ 706	$ 816	$ 1,032	$ 1,068	$ 1,101	$ 1,133
Water Operations Planning - 91041012	455	$ 561	$ 620	$ 651	$ 675	$ 696	$ 716
Water Rights - 91111001	455	$ 817	$ 902	$ 950	$ 986	$ 1,018	$ 1,050
Water Treatment Plant Engineer - 93081009	435	$ 487	$ 561	$ 475	$ 491	$ 506	$ 521

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projected	FY25 Projected	FY26 Projected	FY27 Projected	FY28 Projected
Rinconada WTP General Maint - 93291099	555	$ 4,241	$ 4,368	$ 4,655	$ 4,813	$ 4,958	$ 4,917
Penitencia WTP General Maint - 93231099	555	$ 3,344	$ 3,362	$ 3,507	$ 3,628	$ 3,738	$ 3,848
Santa Teresa WTP General Maint - 93281099	555	$ 3,841	$ 3,879	$ 4,020	$ 4,159	$ 4,285	$ 4,411
Campbell Well Field Maint - 93761005	555	$ 128	$ 102	$ 140	$ 144	$ 149	$ 153
SF/SCVWD Intertie Gen Maint - 93761099	555	$ 139	$ 165	$ 171	$ 176	$ 182	$ 187
San Felipe Reach 1 Gen Maint - 91211099	585	$ 1,000	$ 967	$ 1,801	$ 986	$ 1,016	$ 1,046
San Felipe Reach 2 Gen Maint - 91221099	585	$ 160	$ 156	$ 170	$ 176	$ 181	$ 187
San Felipe Reach 3 Gen Maint - 91231099	585	$ 1,298	$ 1,259	$ 1,170	$ 1,287	$ 1,248	$ 1,285
Vasona Pump Station Gen Main - 92261099	585	$ 183	$ 177	$ 242	$ 230	$ 258	$ 238
Recycled Water T&D Genrl Maint - 92761008	585	$ 297	$ 298	$ 276	$ 286	$ 295	$ 303
Recharge/RW Field Ops - 92761009	585	$ 3,662	$ 3,786	$ 4,113	$ 4,254	$ 4,382	$ 4,510
Rchrg / RW Field Fac Maint - 92761010	585	$ 1,498	$ 1,517	$ 1,594	$ 1,644	$ 1,694	$ 1,744
Anderson Hydrelctrc Fclty Main - 92761085	585	$ 156	$ 154	$ 154	$ 146	$ 164	$ 155
Raw Water T / D Gen Maint - 92761099	585	$ 2,687	$ 2,705	$ 2,721	$ 2,818	$ 2,905	$ 2,991
Treated Water T/D Gen Maint - 94761099	585	$ 1,646	$ 1,598	$ 1,759	$ 1,835	$ 1,878	$ 1,941
San Felipe Reach 1 Operation - 91211004	455	$ 746	$ 810	$ 850	$ 881	$ 908	$ 934

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projected	FY25 Projected	FY26 Projected	FY27 Projected	FY28 Projected
San Felipe Reach 2 Operation - 91221002	455	$ 79	$ 96	$ 101	$ 104	$ 108	$ 111
San Felipe Reach 3 Operation - 91231002	455	$ 311	$ 339	$ 357	$ 369	$ 380	$ 391
Local Res/Div Plan & Analysis - 91761001	455	$ 2,453	$ 2,532	$ 2,509	$ 2,502	$ 2,579	$ 2,655
Raw Water T&D Gen'l Oper - 92761001	455	$ 1,831	$ 1,872	$ 1,970	$ 2,043	$ 2,108	$ 2,173
Untreated Water Prog Plan - 92761012	455	$ 364	$ 430	$ 446	$ 462	$ 476	$ 490
Total		$ 42,097	$ 44,258	$ 46,395	$ 47,451	$ 48,634	$ 49,808

***In thousands.** Data as of October 18, 2022.

Key Milestones for Current Service Levels

- Complete all required corrosion control and cathodic protection monitoring and minor repair work on all utility facilities.
- Provide engineering support for both planned and unplanned work requests and monitor condition of all utility facilities.
- Operate and maintain the Almaden Valley Pipeline, Central Pipeline, Cross Valley Pipeline, and Calero Pipeline, and Santa Clara Conduit and Pacheco Conduit Acoustic Fiber Monitoring Systems
- Ensure pipelines are protected by operating rectifiers based upon industry established criteria per NACE SP0100-2019.
- Update raw water operations plans as water supply conditions change and operations evolve, or at least monthly.
- Submit and maintain Central Valley Project (CVP) and State Water Project (SWP) annual delivery schedules per contract requirements.
- Coordinate San Felipe Division Reach 1 Operations with the United States Bureau of Reclamation (USBR) and San Benito County Water District (SBCWD).
- Manage the untreated surface water program and prepare annual report on previous fiscal year (FY).
- Submit the annual water rights reports to State Water Resources Control Board and pay the associated fees.
- Prepare Lake or Streambed Alteration Agreement (LSAA) South County operating strategy annual compliance report and Annual Report on North County LSAAs.
- Measure groundwater elevation in 200 wells and complete monthly Groundwater Condition Reports.
- Submit annual SGMA report and semi-annual groundwater elevation data to the California Department of Water Resources.
- Implement alternative Groundwater Sustainability Plan and ensure continued SGMA compliance.

- Complete identified Preventive Maintenance (PM) and Corrective Maintenance (CM) work for all water utility facilities.
- Manage operations of off stream recharge, in-stream recharge, canals, ditches, low-pressure pipelines, in-stream diversion facilities, fish screens, and fish ladders.
- Provide on-call support 24 hours per day.
- Plan and execute work projects identified in the 5-year Maintenance Work Plan.
- Perform condition assessments all water utility facilities.

Additional Resource Needs (Unfunded)*

PROJECT NAME & NUMBER	Unit No.	FY24	FY25	FY26	FY27	FY28
Raw Water Corrosion Control - 92781002	435	$ 391	$ 405	$ 419	$ 420	$ 432
Penitencia WTP General Maint - 93231099	555	$ 124	$ 128	$ 132	$ 133	$ 137
Santa Teresa WTP General Maint - 93281099	555	$ 125	$ 129	$ 134	$ 134	$ 138
Rinconada WTP General Maint - 93291099	555	$ 120	$ 124	$ 128	$ 128	$ 132
Total		**$ 760**	**$ 785**	**$ 814**	**$ 815**	**$ 839**

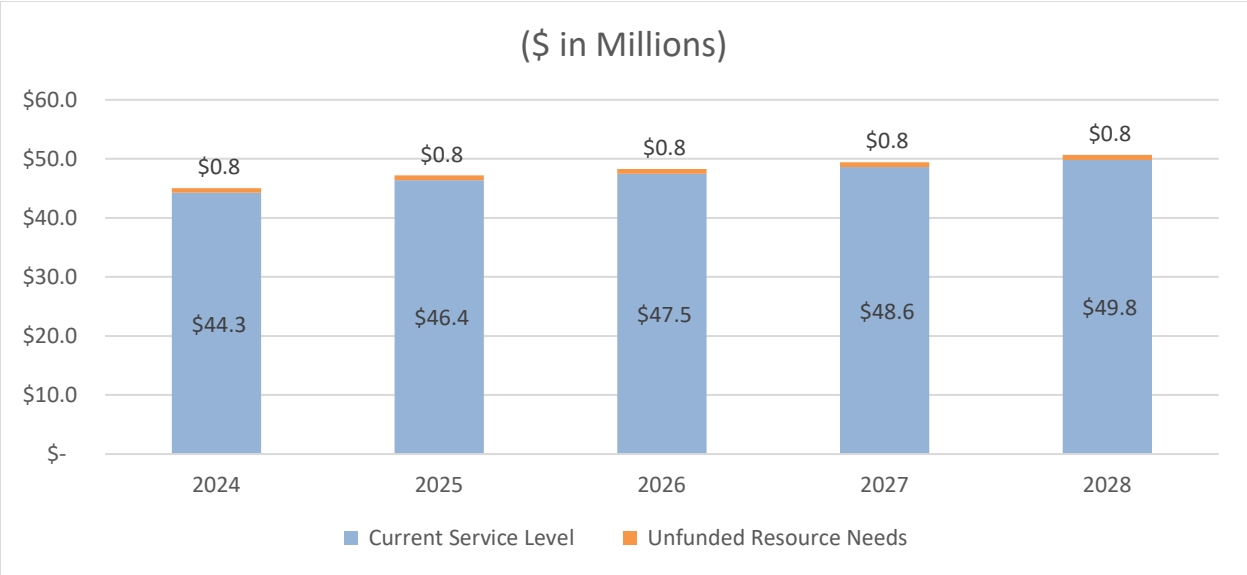
***$ in thousands.** Data as of October 18,2022.

Description of Services to be Provided with Additional Resources

The additional requested resources were not approved through the groundwater charge setting and budget process. The requested resources will provide for:

- Support for Corrosion Control Cathodic Protection Program to compile, analyze and assess data; coordinate and administer on-call contract; coordinate and schedule equipment maintenance and replacement projects; coordinate, plan and schedule CSI and ECDA surveys; and assist with incorporation of data into overall pipeline and infrastructure condition assessment and management strategies.
- Support for Treated Water Treatment Plant General Maintenance of instrumentation and controls assets. The request cost are spread across the 3 water treatment plant general maintenance operating budgets.

Figure 18: Raw Water Operations Division Five Year Projection – Summary



*Data as of October 18,2022.

Treated Water Division

The Treated Water Division (Division) is responsible for managing the operation of Valley Water's three conventional drinking water treatment plants and the Campbell Well Field to provide a reliable, high-quality drinking water supply to the Santa Clara County residents. The Division also manages the operation and maintenance of the Silicon Valley Advanced Water Purification Center to enhance the quality and advance the use of recycled water in the county.

In addition, the Division manages business units that provide leadership and technical support in areas of laboratory services; water quality process engineering; electrical and control systems engineering; and plant maintenance engineering to improve the overall safety, quality, and reliability of current facilities and the commissioning of new facilities upon capital construction handover to Operations and Maintenance (O&M). Furthermore, the Division regularly communicates with Valley Water's drinking water retailers to maintain a collaborative working relationship and conducts annual check-ins and ad-hoc meetings with the State Water Resources Control Board (SWRCB) for ongoing and annual updates of drinking and recycled water regulations.

Unit 515 is this Division's organizational unit and consists of the Deputy Operating Officer, a Senior Management Analyst, and one Administrative Assistant. The following Units are included in this Division:

Plant Maintenance Engineering and Commissioning (Unit 516)
The Plant Maintenance Engineering and Commissioning Unit leads and coordinates the commissioning and start-up activities at Valley Water's treatment plants and, treated water pipelines. The unit supports and implements the integration of large capital projects, throughout all phases, to our treatment plants and treated water pipelines. The unit also provides mechanical engineering support services for operations, maintenance, asset management and capital improvements at the treatment plants and pump stations.

Water Quality (Unit 525)
The Water Quality Unit is responsible for providing water quality operational, process, and project support directly to the treated water managers and water treatment plant supervisors and operators. The unit is also responsible for tracking drinking water-related regulatory development, providing recommendations for regulatory compliance strategy, and communicating with DDW on various regulatory issues and retailers on various water quality issues. The unit provides leadership in water quality and treatment research through collaboration with other agencies and involvement in professional drinking water organizations. In addition, the unit oversees Source Water Quality Management and Invasive Mussel Prevention Programs and supports internal and external groups on source water quality management and protection.

Laboratory Services (Unit 535)
The Laboratory Services Unit is responsible for providing analytical and sampling services to the Water Utility Enterprise. The state-of-the-art laboratory is accredited with the California Environmental Laboratory Accreditation Program (ELAP), maintains a robust quality assurance and quality control program, and tests water produced from each of our drinking water treatment plants, distribution lines, the Silicon Valley Advanced Water Purification Center, surface water reservoirs and groundwater basins.

Utility Electrical and Control Systems Engineering (Unit 545)
The Utility Electrical and Control Systems Engineering Unit provides electrical, control systems, Supervisory Control and Data Acquisition (SCADA), and imported electricity management engineering

services, including direct technical services, in support of Valley Water's critical infrastructure and systems used in the day-to-day (24 hours a day, 7 days a week) operations and maintenance of its complex, countywide raw and treated water conveyance system (including three raw water pump stations and pipelines), three drinking water treatment plants, one advanced purified water processing plant, the headquarters office campus, and watershed facilities. The imported electricity management saved Valley Water approximately $1 Million in annual electrical energy expenditures and is 100 percent carbon-free in 2021.

North Water Treatment Operations (Unit 565)
The North Water Treatment Operations Unit provides safe, clean, and high-quality drinking water to Valley Water's three (3) treated water retailers along the East/Milpitas Pipelines, including San Jose Water Company, City of San Jose, and City of Milpitas. The unit is responsible for safe and cost-effective operations (24 hours a day, 7 days a week) and management of the Penitencia Water Treatment Plant (PWTP), the joint San Francisco Public Utilities Commission (SFPUC)-Valley Water (VW) Intertie facility, and the East/Milpitas Pipeline turnouts. The unit is also responsible for cost-effective operations and maintenance of the Silicon Valley Advanced Water Purification Center (SVAWPC).

South Water Treatment Operations (Unit 566)
The South Water Treatment Operations Unit provides safe, clean, and high-quality drinking water and a backup supply of drinking water to Valley Water's seven (7) treated water retailers, and ultimately to the residents of Santa Clara County. The unit is responsible for providing safe and cost-effective operations (24 hours a day, 7 days a week) and management of the Santa Teresa Water Treatment Plant (STWTP), the Rinconada Water Treatment Plant (RWTP), the Campbell Well Field, and the West and Snell/East Pipeline turnouts.

Funding for current service levels as well as future resource requirements which are not yet funded for the operations projects managed by this Division are included in the tables below. The resource requirements and unfunded needs are summarized by project.

Resource Requirements for Current Service Levels*

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projection	FY25 Projection	FY26 Projection	FY27 Projection	FY28 Projection
Campbell Well Field Operations - 93761004	566	$ 102	$ 109	$ 113	$ 116	$ 119	$ 122
Energy Management - 21008	545	$ 380	$ 415	$ 434	$ 450	$ 464	$ 478
Invasive Mussel Prevention - 91451011	525	$ 717	$ 797	$ 844	$ 822	$ 847	$ 872
Plant Maintenance Engineering & Commissioning	516	$ 953	$ 823	$ 861	$ 892	$ 919	$ 946

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projection	FY25 Projection	FY26 Projection	FY27 Projection	FY28 Projection
Project - 93081002							
PWTP General Operations - 93231009	565	$ 7,079	$ 8,203	$ 8,448	$ 8,747	$ 9,025	$ 9,305
Raw Water T&D Ctrl and Electr - 92761082	545	$ 874	$ 876	$ 905	$ 937	$ 965	$ 993
RWTP General Operations - 93291012	566	$ 10,616	$ 11,964	$ 11,915	$ 12,347	$ 13,601	$ 14,056
San Felipe Reach1 Ctrl and Ele - 91211084	545	$ 464	$ 394	$ 412	$ 427	$ 440	$ 452
San Felipe Reach3 Ctrl and Ele - 91231084	545	$ 294	$ 345	$ 359	$ 371	$ 383	$ 394
SF/SCVWD Intertie General Ops - 93761001	565	$ 170	$ 178	$ 188	$ 194	$ 200	$ 206
Source Water Quality Mgmt - 91451005	525	$ 396	$ 427	$ 448	$ 731	$ 479	$ 493
STWTP - General Operations - 93281005	566	$ 7,375	$ 7,649	$ 8,361	$ 8,652	$ 8,922	$ 9,195
SVAWPC Facility Maintenanc - 91281008	565	$ 3,142	$ 2,449	$ 2,976	$ 2,418	$ 3,617	$ 5,116
SVAWPC Facility Operation - 91281007	565	$ 2,985	$ 4,011	$ 4,280	$ 4,224	$ 4,378	$ 4,535
Treated Water Ctrl & Elec Eng - 93761006	545	$ 2,974	$ 3,242	$ 3,390	$ 3,511	$ 3,618	$ 3,724
W T General Water Quality - 93081008	525	$ 2,798	$ 2,787	$ 2,928	$ 3,032	$ 3,125	$ 3,218

PROJECT NAME & NUMBER	Unit No.	FY23 Adopted	FY24 Projection	FY25 Projection	FY26 Projection	FY27 Projection	FY28 Projection
Water District Laboratory - 93401002	535	$ 6,532	$ 6,945	$ 7,361	$ 7,639	$ 7,916	$ 8,171
Wolfe Road Recycled Water Facilit - 91241001	565	$ 100	$ 210	$ 223	$ 229	$ 236	$ 243
SCADA Systems Upgrade - 761013	545	$ 868	$ 905	$ 938	$ 968	$ 998	$ -
Total		**$ 48,818**	**$ 52,729**	**$ 55,385**	**$ 56,708**	**$ 60,250**	**$ 62,517**

***In thousands.** Data as of October 18,2022

Key Milestones for Current Service Levels

- 100% of the treated water delivered to customers meets and/or surpasses all applicable primary drinking water quality regulatory standards.
- Provide cost-effective service to our retailers, ensuring that the annually contracted volume of treated water is delivered effectively and efficiently.
- Supply recycled water, up to 8 million gallons per day, to reach a target of 500 mg/L (+/- 50 mg/L) for total dissolved solids, into the South Bay Water Recycling distribution system.
- Provide water to SFPUC through the Intertie as needed, consistent with the SFPUC-Valley Water agreement.
- Maintain state accreditation through California ELAP for majority of drinking water parameters, through the successful completion of on-site audits, proficiency testing studies, and payment of applicable fees.
- Submit all regulatory compliance reports for drinking water testing by the required due dates.
- Provide technical expertise and leadership for all commissioning-related work to improve overall safety, quality, and reliability upon capital construction handover to Operations and Maintenance.
- Provide mechanical engineering support services for operations, maintenance, asset management and capital improvements of treatment plants and pump stations.
- Actively track drinking water regulations and provide annual updates on the status of regulations.
- Maintain regular communications and participate in the annual check-in with DDW.
- Maintain timely and regular communication with retailers on water quality issues.
- Support continual operation of critical water utility facilities, dam safety projects, new reservoir projects, and raw and treated water capital projects by providing essential electrical, control systems, and SCADA engineering services to capital project teams.
- Continue to manage a cost-effective and carbon-free imported electricity program.
- Support the development of the water treatment plant, distribution system and SCADA master plans.

Additional Resource Needs (Unfunded)*

PROJECT NAME & NUMBER	Unit No.	FY24 Projection	FY25 Projection	FY26 Projection	FY27 Projection	FY28 Projection
Plant Maintenance Engineering & Commissioning Project - 93081002	516	$ 462	$ 478	$ 495	$ 496	$ 510
W T General Water Quality - 93081008	525	$ 452	$ -	$ -	$ -	$ -
Water District Laboratory - 93401002	535	$ 394	$ 408	$ 422	$ 423	$ 436
Total		**$ 1,308**	**$ 885**	**$ 918**	**$ 919**	**$ 946**

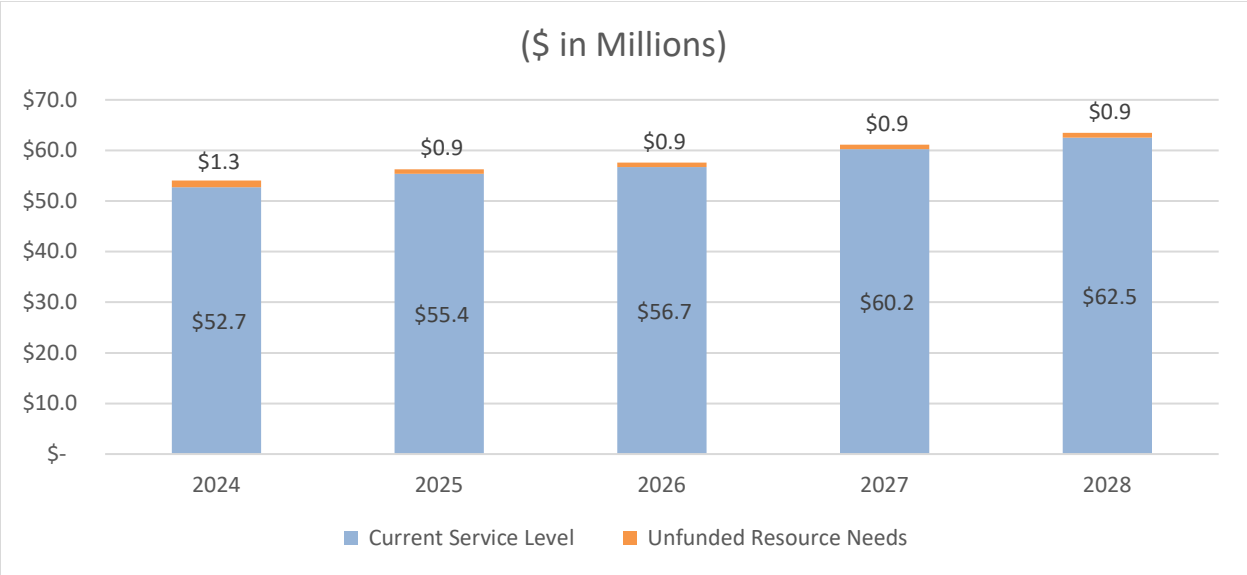
***$ in thousands.** Data as of October 18,2022

Description of Services to be Provided with Additional Resources

The additional requested resources were reviewed through the groundwater charge setting and budget process. The resources will provide for:

- Support for the implementation of the quality assurance and quality control requirements per new ELAP laboratory accreditation standards required by January 1, 2024, and to support sampling and testing activities for emerging contaminants such as PFAS, algaltoxins, and Microplastics.
- Support for mechanical engineering work for operations, maintenance, asset management and capital projects and programs for four treatment plants, three pump stations, SFPUC-VW Intertie, and related transmission facilities.
- Support for Water Quality program's pilot and full-scale testing, troubleshooting and recommendations on various water quality issues. Conduct water quality data and plant performance evaluation with effective data query tools.

Figure 19: Treated Water Operations Division Five Year Projection – Summary



*Data as of October 18,2022.

Fiscal year 2023-2027
Water Utility Enterprise Operation & Maintenance Plan (WUE OMP)

APPENDIX A: FISCAL YEAR 2024 (FY2024)

PLANNED ASSET RENEWAL WORK

Overview
Appendix A contains tables conveying the FY2024 Planned Asset Renewal Work (PARW) details per facility. Each facility has one table for planned work which may span multiple pages. In addition, one table has been made to convey the backlog.

Notes for the PW tables:

- The project costs provided in the tables include services and supply costs; and required labor hours are estimated. The required labor hours are provided by staff and are conservative.
- Work order number will be generated in Maximo and effective July 1,2023.

Description	Figure No.
FY2024 PW for PWTP	20
FY2024 PW for SFI	21
FY2024 PW for RWTP	22
FY2024 PW for STWTP	23
FY2024 PW for SVAWPC	24
FY2024 PW for San Felipe Reaches	25
FY2024 PW for Water Supply Management System	26

Maximo work orders- will be created in July 2023

Figure 20: FY24 Planned Asset Renewal Work for PWTP

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
PWTP ALUM/FERRIC SYSTEM	Clean and coat Alum Tank #1 (internal staff) - AP10017	$ 2,500	1
	Clean and coat Alum Tank #2 (internal staff) - AP10018	$ 2,500	2
	Clean and coat Alum Tank #3 (internal staff) - AP10019	$ 2,500	3
PWTP CLEARWELL SYSTEM	Maintenance & Inspection of PWTP CLEARWELL - AP10151 **Maximo work order: to be created in June 2023**	$200,000	4
	PWTP Clearwell bypass install BFVs	$250,000	5
PWTP ZINC/PHOSPHORIC ACID SYSTEM	Replacement of PWTP PHOSPHORIC ACID FLOW METER - AP10671		7
PWTP has 6 total FY24 Renewal Projects with an estimated cost of ~$463,865K.			

Figure 21: FY24 Planned Asset Renewal Work for SFI

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
SFI has 0 total FY24 Renewal Projects with an estimated cost of ~$0.			

Figure 22: FY24 Planned Asset Renewal Work for RWTP

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
RWTP AQUA AMMONIA SYSTEM	Replacement of RWTP AQUA NH4 FLOWMETER # 1-1/4INCH - AP20375	$ 6,000	1
	Replacement of RWTP AQUA NH4 FLOWMETER # 2- 1/10INCH - AP20376	$ 6,000	2
	Removal of tank liner for RWTP AQUA NH4 STORAGE TANK - AP20030	$ 130,000	3
RWTP CARBON SYSTEM	Replacement of RWTP Chemical Feed Pump- purchase 1 spare	$ 14,000	4
	Replacement of RWTP PAC DUST COLLECTOR #1 - AP20100	$ 60,000	5
RWTP FILTER POLY SYSTEM (NON-IONIC)	Replacement of RWTP NON-IONIC FILTER POLY FLOW METER; FLOC #1 - AP50158	$ 6,365	6
	Replacement of RWTP NON-IONIC FILTER POLY FLOW METER; FLOC #2 - AP50159	$ 6,365	7
	Replacement of RWTP NON-IONIC FILTER POLY FLOW METER; FLOC #3 - AP50160	$ 6,365	8
	Replacement of RWTP NON-IONIC FILTER POLY FLOW METER; FLOC #4 - AP50161	$ 6,365	9

Maximo work orders- will be created in July 2023

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
RWTP FILTER SYSTEM	Replacement of RWTP FILTER #1 LEVEL TRANSMITTER (NORTH) - AP20196	$4,000	10
	Replacement of RWTP FILTER #1 LEVEL TRANSMITTER (SOUTH) - AP20197	$4,000	11
	Replacement of RWTP FILTER #1 RFCV HEADLOSS METER - AP46658	$ 6,365	12
	Replacement of RWTP FILTER #2 LEVEL TRANSMITTER (NORTH) - AP20208	$4,000	13
	Replacement of RWTP FILTER #2 LEVEL TRANSMITTER (SOUTH) - AP20209	$4,000	14
	Replacement of RWTP FILTER #2 RFCV HEADLOSS METER - AP46661	$ 6,365	15
	Replacement of RWTP FILTER #3 LEVEL TRANSMITTER (NORTH) - AP20221	$4,000	16
	Replacement of RWTP FILTER #3 LEVEL TRANSMITTER (SOUTH) - AP20222	$4,000	17
	Replacement of RWTP FILTER #3 RFCV HEADLOSS METER - AP46659	$ 6,365	18
	Replacement of RWTP FILTER #4 LEVEL TRANSMITTER (NORTH) - AP20233	$4,000	19
	Replacement of RWTP FILTER #4 LEVEL TRANSMITTER (SOUTH) - AP20234	$4,000	20
	Replacement of RWTP FILTER #4 RFCV HEADLOSS METER - AP46662	$ 6,365	21
	Replacement of RWTP FILTER #5 LEVEL TRANSMITTER (NORTH) - AP54301	$4,000	22
	Replacement of RWTP FILTER #5 LEVEL TRANSMITTER (SOUTH) - AP54302	$4,000	23
	Replacement of RWTP FILTER #5 RFCV HEADLOSS METER - AP46660	$ 6,365	24
	Replacement of RWTP FILTER #6 LEVEL TRANSMITTER (NORTH) - AP54303	$4,000	25
	Replacement of RWTP FILTER #6 LEVEL TRANSMITTER (SOUTH) - AP54304	$4,000	26
	Replacement of RWTP FILTER #6 RFCV HEADLOSS METER - AP49756	$ 6,365	27
	Replacement of RWTP FILTER #1 LEVEL TRANSMITTER (NORTH) - AP20196	$4,000	28
	Replacement of RWTP FILTER #1 LEVEL TRANSMITTER (SOUTH) - AP20197	$4,000	29
	Replacement of RWTP FILTER #1 RFCV HEADLOSS METER - AP46658	$ 6,365	30
	Replacement of RWTP FILTER #2 LEVEL TRANSMITTER (NORTH) - AP20208	$4,000	31

Maximo work orders- will be created in July 2023

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
	Replacement of RWTP FILTER #2 LEVEL TRANSMITTER (SOUTH) - AP20209	$4,000	32
	Replacement of RWTP FILTER #2 RFCV HEADLOSS METER - AP46661	$ 6,365	33
	Replacement of RWTP FILTER #3 LEVEL TRANSMITTER (NORTH) - AP20221	$4,000	34
	Replacement of RWTP FILTER #3 LEVEL TRANSMITTER (SOUTH) - AP20222	$4,000	35
	Replacement of RWTP FILTER #3 RFCV HEADLOSS METER - AP46659	$ 6,365	36
	Replacement of RWTP FILTER #4 LEVEL TRANSMITTER (NORTH) - AP20233	$4,000	37
	Replacement of RWTP FILTER #4 LEVEL TRANSMITTER (SOUTH) - AP20234	$4,000	38
	Replacement of RWTP FILTER #4 RFCV HEADLOSS METER - AP46662	$ 6,365	39
	Replacement of RWTP FILTER #5 LEVEL TRANSMITTER (NORTH) - AP54301	$4,000	40
	Replacement of RWTP FILTER #5 LEVEL TRANSMITTER (SOUTH) - AP54302	$4,000	41
	Replacement of RWTP FILTER #5 RFCV HEADLOSS METER - AP46660	$ 6,365	42
	Replacement of RWTP FILTER #6 LEVEL TRANSMITTER (NORTH) - AP54303	$4,000	43
	Replacement of RWTP FILTER #6 LEVEL TRANSMITTER (SOUTH) - AP54304	$4,000	44
	Replacement of RWTP FILTER #6 RFCV HEADLOSS METER - AP49756	$ 6,365	45
RWTP SODIUM HYDROXIDE (CAUSTIC) SYSTEM	Replacement of RWTP CAUSTIC METER PUMP # 1; FLOWMETER (FIT-303) - AP50217	$ 6,365	46
	Replacement of RWTP CAUSTIC METER PUMP # 2; FLOWMETER (FIT-302) - AP50218	$ 6,365	47
	Replacement of RWTP CAUSTIC METER PUMP # 3; FLOW METER (FIT-301) - AP50219	$ 6,365	48
RWTP WATER MONITORING SYSTEM	Replacement of RWTP 2100N TURBIDIMETER (SPARE) - BENCHTOP - AP20592	$7,966	49
RWTP ZINC/PHOSPHORIC ACID SYSTEM	Replacement of RWT PHORPHORIC ACID SUMP TANK LEVEL SENSOR - AP50769	$6,565	50
	Replacement of RWT PHOSPHORIC ACID TANK #1; LEVEL SENSOR (LIT 201) - AP50746	$6,565	51

Maximo work orders- will be created in July 2023

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
	Replacement of RWT PHOSPHORIC ACID TANK #2; LEVEL SENSOR (LIT 202) - AP50747	$6,565	52
RWTP MORE AVE PUMP SYSTEM	Rebuild RWTP MORE AVENUE PUMP STATION PUMP #2 - AP21038	$65,000	53
RWTP DEWATERING SYSTEM	Rebuild RWTP SLUDGE DEWATERING CENTRIFUGE #2 (RDWTCFG02) - AP66934	$80,000	54
	Rebuild RWTP SLUDGE DEWATERING CENTRIFUGE #1 (RDWTCFG01) - AP66933	$80,000	55
RWTP has 55 total FY24 Renewal Projects with an estimated cost of $620,141			

Figure 23: FY24 Planned Asset Renewal Work for STWTP

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
STWTP AMMONIA SYSTEM	*Maintenance & Inspection of STWTP AQUA NH4 STORAGE TANK - AP30050 (need to check last report)	$7,082	1
STWTP CARBON SYSTEM	Replacement of STWTP CARBON DUST COLLECT BLOW MOTOR NORTH ME-51 - AP30103	$6,365	2
	Replacement of STWTP CARBON DUST COLLECT BLOW MOTOR SOUTH ME-50 - AP30108	$6,365	3
	Replacement of STWTP CARBON METER PUMP MOTOR #1 VFD FD-28 - AP43072	$4,249	4
	Replacement of STWTP CARBON METER PUMP MOTOR #2 VFD FD-29 - AP43073	$4,249	5
	Replacement of STWTP CARBON METER PUMP MOTOR #3 VFD FD-30 - AP43074	$4,249	6
	Replacement of STWTP CARBON MIXER DRIVE MOTOR - NORTH MX-43 - AP30106	$6,365	7
	Replacement of STWTP CARBON MIXER DRIVE MOTOR - SOUTH MX-42 - AP30111	$6,365	8
STWTP CATIONIC POLYMER SYSTEM	Replacement of STWTP CATIONIC POLY TANK #10 MIXER (MX-1) - AP30330 (cost includes mixer, motor, and drive)	$8,500	9
	Replacement of STWTP CATIONIC POLY TANK #10 MIXER MOTOR (MX-1)		
	Replacement of STWTP CATIONIC POLY TANK #10 MIXER MOTOR DC DRIVE (MX-1) (change to AC)		
	Replacement of STWTP CATIONIC POLY TANK #11 MIXER (MX-2)		
	Replacement of STWTP CATIONIC POLY TANK #11 MIXER (MX-2) - AP30332 (cost includes mixer, motor, and drive)	$8,500	10
	Replacement of STWTP CATIONIC POLY TANK #11 MIXER MOTOR DC DRIVE (MX-2) (change to AC)		
STWTP CLEARWELL SYSTEM	Maintenance & Inspection of STWTP CLEARWELL - AP42738	$5,000	11

Maximo work orders- will be created in July 2023

STWTP MAIN ELECTRICAL SYSTEM	Maintenance & Inspection of STWTP MAIN SWITCHBOARD A - OZONE GEN ELEC ROOM - AP45081		
	Maintenance & Inspection of STWTP MAIN SWITCHBOARD B - OZONE GEN ELEC ROOM - AP45082	$6,293	12
	Maintenance & Inspection of STWTP MAIN SWITCHGEAR (MSG-21KV) - AP52060	$6,293	13
	Maintenance & Inspection of STWTP MAIN SWITCHBOARD A - OZONE GEN ELEC ROOM - AP45081	$6,293	14
STWTP NON-IONIC POLY SYSTEM	Replacement of STWTP FLOC MIXER 2ND STG MX-10 - AP30731		
	Replacement of STWTP FLOC MIXER DRIVE MOTOR 2ND STG MX-10 - AP30732		
	Replacement of STWTP FLOC MIXER 2ND STG MX-10 - AP30731		
	Replacement of STWTP FLOC MIXER DRIVE MOTOR 2ND STG MX-10 - AP30732		
	Replacement of STWTP FLOC MIXER 3RD STG MX-12 - AP30735		
	Replacement of STWTP FLOC MIXER DRIVE MOTOR 3RD STG MX-12 - AP30736		
	Replacement of STWTP FLOC MIXER 3RD STG MX-13 - AP30737		
	Replacement of STWTP FLOC MIXER DRIVE MOTOR 3RD STG MX-13 - AP30739		
STWTP SODIUM HYPOCHLORITE (OCL) SYSTEM	Replacement of liner for STWTP OCL STORAGE TANK #1 - AP30138	$20,000	
STWTP has # total FY24 Renewal Projects with an estimated cost of $116,543.			

Figure 24: FY24 Planned Asset Renewal Work for SVAWPC

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
SVA AQUA AMMONIA SYSTEM	Replacement of SVA AQUA AMMONIA FEED PUMP #1 (PMP-8201) - AP52383	$9,281	
SVA DECARBONATION SYSTEM	Rehabilitation of SVA Decarbonation Tower #1 Blower (BLO-2901) - AP52667	$7,219	
	Rehabilitation of SVA Decarbonation Tower #2 Blower (BLO-2902) - AP52672	$7,219	
	Rehabilitation of SVA PRODUCT WATER TRANSFER PUMP #1 (PMP-2911) - AP52680	$29,699	
SVA INFLUENT PUMPS AND STRAINERS	AP52901 - SVA INFLUENT PUMP #1; CHECK VALVE (VLV-1112)	$25,000	
	AP52905 - SVA INFLUENT PUMP #2; CHECK VALVE (VLV-1122)	$25,000	

Maximo work orders- will be created in July 2023

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
SVA INFLUENT PUMPS AND STRAINERS	AP52907 - SVA INFLUENT PUMP #3; CHECK VALVE (VLV-1132)	$25,000	
	AP52910 - SVA INFLUENT PUMP #4; CHECK VALVE (VLV-1142)	$25,000	
	FY24 Autostrainer condition assessment evaluation (AM) AP52345	$75,000	
	FY24 Autostrainer condition assessment evaluation (AM) AP52347	$75,000	
	FY24 Autostrainer condition assessment evaluation (AM) AP52349	$75,000	
	FY24 Autostrainer condition assessment evaluation (AM) AP52351	$75,000	
	SVA AUTOSTRAINER UNIT #1 16 in CHECK VALVE (VLV-1161)	$15,000	
	SVA AUTOSTRAINER UNIT #2 16 in CHECK VALVE (VLV-1171)	$15,000	
	SVA AUTOSTRAINER UNIT #3 16 in CHECK VALVE (VLV-1181)	$15,000	
	SVA AUTOSTRAINER UNIT #4 16 in CHECK VALVE (VLV-1191)	$15,000	
SVA MF AERATION SYSTEM	Replacement of SVA MF SCRUB AIR BLOWER #1; MOTOR (MTR-1901) - AP52491	$5,150	
	Replacement of SVA MF SCRUB AIR BLOWER #2; MOTOR (MTR-1902) - AP52494	$5,150	
SVA MF CIP SYSTEM	Rehabilitation of SVA MF CIP CIRCULATION PUMP #2 (PMP-1602) - AP52518	$28,511	
SVA MF HIGH PRESSURE AIR SYSTEM	Inspection of SVA MF COMPRESSED AIR RECEIVER TANK (TNK-1801) - AP52485	$1,815	
SVA PRODUCT WATER STORAGE SYSTEM	Inspection of SVA PRODUCT WATER STORAGE TANK (PWST-4001) TNK - AP52770 *cost provided by Techcorr*	$45,000	
SVA RO INTERPROCESS SYSTEM	Inspection of SVA Inter-Process Storage Tank (IST-1301) - AP70378 *cost provided by Techcorr*	$55,000	
SVA SODIUM HYPOCHLORITE (OCL) SYSTEM	Replacement of SVA SODIUM HYPOCHLORITE FEED PUMP #2 (PMP-8102) - AP67783	$9,559	
	Replacement of SVA SODIUM HYPOCHLORITE FEED PUMP #3 (PMP-8103) - AP52373	$9,281	
	Replacement of SVA SODIUM HYPOCHLORITE PUMP #1 MOTOR (MTR-8101) - AP69685	$1,236	
	Replacement of SVA SODIUM HYPOCHLORITE PUMP #2 MOTOR (MTR-8102) - AP69686	$2,060	

Maximo work orders- will be created in July 2023

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
SVA WASTE EQUALIZATION SYSTEM	AP70342 - SVA Wetwell Pump 5001 Check Valve (VLV-5011)	$25,000	
	AP70345 - SVA Wetwell Pump 5002 Check Valve (VLV-5021)	$25,000	
	AP70348 - SVA Wetwell Pump 5003 Check Valve (VLV-5031)	$25,000	
	Spare parts for 10 control panels; change out components on an as need basis.	$20,000	
SVAWPC has 37 total FY24 Renewal Projects with an estimated cost of ~$700K.			

Figure 25: FY 24 Planned Asset Renewal Work for San Felipe Reaches

System	Renewal Project Description and Maximo work order number	Estimated Cost	#
REACH 3 **CPP – MAIN PUMP**	Rehabilitation of CPP Pump (Unit1) - AR42376 **Maximo work order: to be created in July 2022**	$ 180,000	1
	Rehabilitation of CPP Pump (Unit #2) - AR42376 **Maximo work order: to be created in July 2022**	$ 180,000	2
REACH 1 **PPP – MAIN PUMP**	Rehabilitation of PPP Pump Unit (Unit TBD) **Maximo work order: to be created in July 2022**	$ 1,320,000	3
	Inspection and Rehabilitation of PPP Motor (Unit TBD) **Maximo work order: to be created in July 2022**	$ 240,000	4
REACH 1 **PPP – BUILDINGS AND GROUNDS**	Installation of crane remote control	$ 12,000	5
San Felipe Reaches 1 and 3 have 5 total FY24 Renewal Projects with an estimated cost of ~$1.932M			

Figure 26: FY24 Planned Asset Renewal Work for WSMS

System	MWP Activity Description and Maximo work order number	Estimated Cost	#
WSMS has 0 total FY24 Renewal Projects with an estimated cost of ~$0M. WSMS work orders are created by Raw Water Field Operations & Pipeline Maintenance Unit Field Operations Admin.			

Maximo work orders- will be created in July 2023

Valley Water

Fiscal year 2023-2027
Water utility Enterprise Maintenance Work Plan (MWP)

APPENDIX B: REVIEW OF FISCAL YEAR 2023(FY23) PLANNED ASSET RENEWAL WORK

Program Success

The MWP program success is defined by:

- 40% or better completion rate of the MWP recommended PW.
- Ratio of corrective maintenance to preventative maintenance total cost below 0.8, which has historically exceeded 1.0.

Review

The ratio of corrective maintenance to preventative maintenance is TBD for the Water Treatment Plants Maintenance and TBD for Raw Water Maintenance. This meets the program success criteria as it is below 0.8.

A total of TBD or ~TBD% of the Asset Renewal Projects FY23 recommended PW items were completed as of June 4, 2022. Only TBD staff hours and TBD were documented in Maximo, though the work likely required more resources than documented.

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Valley Water

Clean Water • Healthy Environment • Flood Protection

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