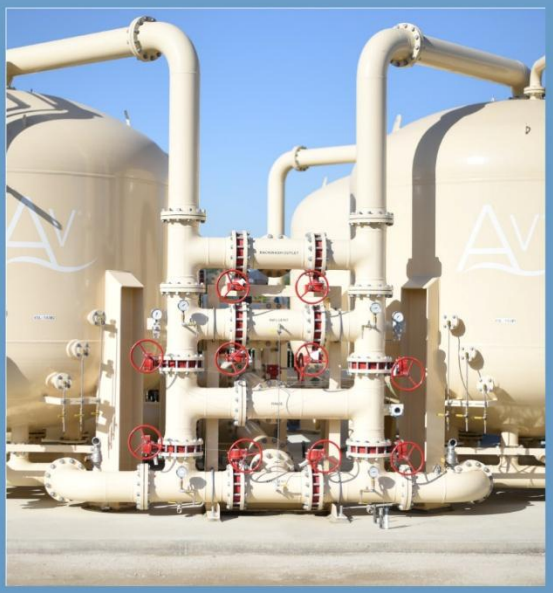


Asset Management Plan 2026 Update Zone 7 Water Agency

APRIL 2026

– BLANK –

Table of Contents

List of Tables

List of Figures

EXECUTIVE SUMMARY

Introduction

The purpose of the Asset Management Plan (AMP) is to plan for and implement asset renewal projects such that Zone 7 can continue to provide high-quality, reliable water delivery to the residents of the Livermore-Amador Valley. Findings from this study support the development of the Water System Capital Improvement Plan (CIP).

Zone 7's AMP has a planning horizon of 40 years. The 2026 AMP Update covers projects to be incorporated into the water system capital improvement plan for the next ten years (i.e., FY 2026-27 to FY 2035-36, or "near-term") and the funding forecast for the subsequent 30 years (i.e., FY 2036-37 to FY 2065-66, or "long-term"). As part of the current update, the asset database and long-term funding forecast have been updated to reflect capital projects that were completed and assets that were renewed since the last update, new projects, and the long-term renewal of assets. During the development of this plan, several workshops were conducted with staff and management during 2024 and 2025 to identify updates to the asset registry, review and update assumptions for the replacement of specific asset classes, and develop capital projects.

The draft 2026 AMP Update and draft Fiscal Year 2026-27 Ten-Year Water System Capital Improvement Plan (FY 2026-27 Ten-Year CIP) were presented to the retailers at a meeting on January 20, 2026. The proposed draft plans were presented at the Board workshop on March 4, 2026, and adopted at the April 15, 2026, Board meeting.

Program Framework

Zone 7's Strategic Plan guides the identification and prioritization of capital projects to be incorporated into the CIP and AMP. The CIP and AMP support Strategic Plan Initiative 6 – Continue to effectively implement infrastructure projects in the Water System Capital Improvement Plan and Initiative 21 – Continue to effectively manage financial resources.

Additionally, to ensure that the needs of Zone 7 customers are met, Zone 7 has set level of service goals consistent with its mission and as defined by adopted Board policies related to water supply and reliability and delivered water quality. These goals guide the development and implementation of the CIP and AMP.

Zone 7 maintains a fixed asset inventory in a Microsoft Access database format called AMTools that was developed to provide a central repository of asset information to support the asset management and capital improvement planning process. The asset database was reviewed and updated to reflect current water infrastructure.

Renewal projects focus on renewal or replacement of existing facilities to maintain the established level of service to existing Zone 7 customers. System-wide improvement (SWI) projects address enhancements to existing facilities to improve water quality, environmental compliance, safety, and operational flexibility. Because renewal/replacement and SWI projects in the CIP are funded by water rates through Fund 120, the near-term and long-term funding forecasts reflect the combined costs of these project categories.

Near-Term Renewals and SWI Projects

Near-term renewals and SWI projects are those which will be implemented during the ten-year period from FY 2026-27 through FY 2035-36. The near-term renewal plan is based on project information provided by staff, projects identified during the visual condition assessment and risk modeling, and an analysis of the remaining useful lives of the assets in the asset management database.

Zone 7 has projects that have been defined through previous CIP efforts as well as potential projects identified by various sections. Through a series of meetings, the CIP list was developed, verified, and expanded to capture all known key, upcoming capital needs. CIP projects identified by staff with over $10 million funded by Fund 120 include DVWTP and PPWTP HVAC and Improvements, Maintenance Yard and Building, and Silver Oaks Pump Station.

The 2026 AMP Update included a visual condition assessment of above-ground assets and a tabletop risk assessment of buried pipelines to determine remaining useful life of assets and assets that require more detailed condition assessment. Assets that needed renewal/replacement were grouped into new or existing capital projects. The below-ground risk assessment used the Zone 7 pipeline risk model originally developed as part of the 2011 AMP Update to identify and prioritize pipelines for condition assessment. The pipelines with the highest risk were prioritized for condition assessment and included in the Pipeline Condition Assessments program developed for the FY 2026-27 Ten-Year CIP. Potential priority pipelines identified for condition assessment include Del Valle-Livermore, DVWTP Transmission Pipeline, Santa Rita-Dougherty, Hopyard, Cross Valley, and Vineyard.

Within the FY 2026-27 to FY 2035-36 planning period, the Chain of Lakes Conveyance System and Mocho PFAS Treatment Plant are key SWI projects funded wholly or in part by Fund 120.

Long-Term Funding Forecast

As part of the 2011 AMP Update, the long-term asset renewal forecasting methodology was revised to base long-term renewal budgets on asset replacement at 100% of an asset's original useful life (OUL), rather than 50% of an asset's OUL which was the methodology used for the 2004 AMP Update. The 2011 methodology is used for the 2026 AMP Update, except that the long-term renewal budget forecasting approach for pipeline assets and some structural/architectural assets has been updated to transition from budgeting for age-based

replacement to a condition-based life extension program. This approach provides a more proactive asset management strategy that increases reliability and the useful life of assets and reduces unscheduled repairs.

It is reasonable to anticipate that Zone 7 will continue with system-wide improvements beyond the ten-year CIP planning period to meet future regulatory requirements and other needs. Therefore, to support the long-term renewal forecast it is necessary to develop an assumption regarding future SWI funding needs beyond those projects already planned. For the rest of the AMP planning period from FY 2036-37 through FY 2065-66, an average yearly funding level of $3.4 million is assumed based on the average of SWI costs over the next ten years, excluding large projects.

Funding Analysis and Recommended Annual Funding Level

The recommended funding level is based on the forecasted capital expenditures for total renewal costs, including near- and long-term renewal costs, as well as SWI costs. The total estimated capital cost for renewal and SWI projects between FY 2026-27 and FY 2065-66 is approximately $837.5 million (2026 dollars). Including planned projects, the total forecasted renewal funding requirement from FY 2026-27 through FY 2065-66 is approximately $541.6 million (2026 dollars), with approximately $118.5 million for projects between FY 2026-27 and FY 2035-36 (near-term), and approximately $423 million in costs from FY 2036-37 through FY 2065-66 (long-term). Including planned projects, the total forecasted SWI costs from FY 2026-27 through FY 2065-66 is approximately $295.9 million (2026 dollars), with approximately $188.7 million for projects between FY 2026-27 and FY 2035-36 (near-term), and $107.2 million in costs from FY 2036-37 through FY 2065-66 (long-term). The total renewal and SWI funding needs are illustrated in Figure ES-1. The total cost for each component of the funding forecast is summarized in Table ES-1.

Figure ES-1. Total Forecasted Renewal and SWI Funding Requirements, FY 2026-27-FY 2065-66 (2026 $ millions, Fund 120 portion)

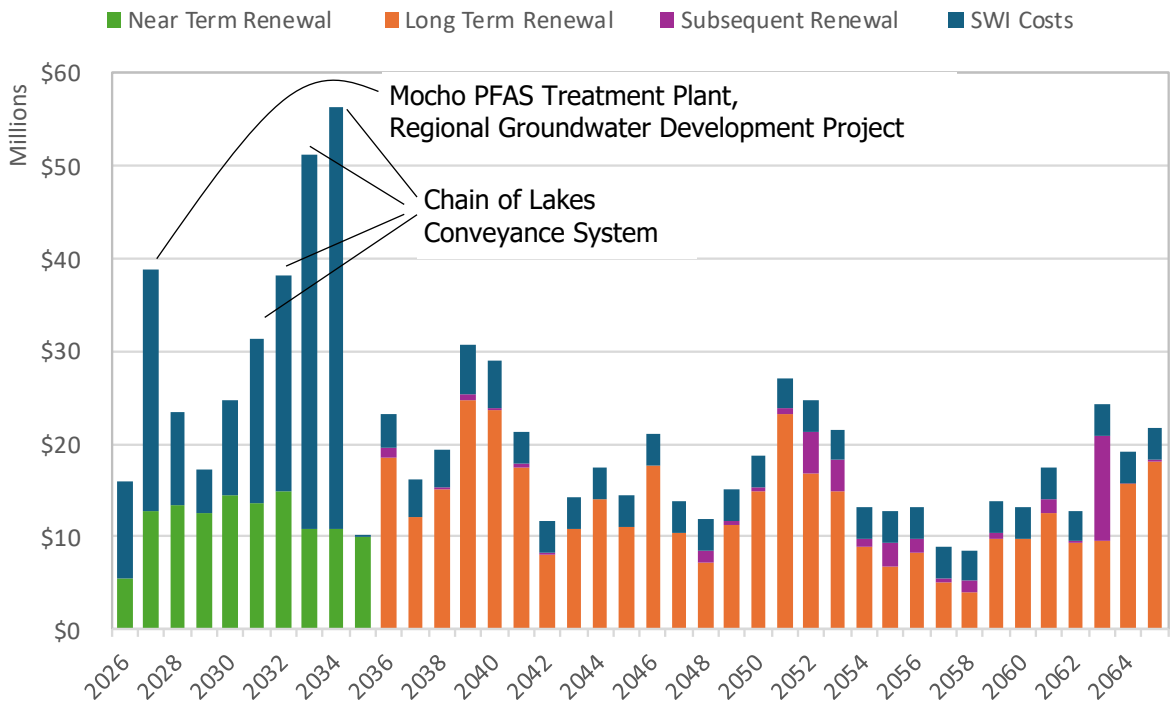


Table ES-1. Total Forecasted Renewal and SWI Funding Requirements, FY 2026-27-FY 2065-66 (2026 $ millions, Fund 120 portion)

Funding Forecast Component	Total Capital Cost, FY 2026-27 - FY 2065-66 (2026 $ millions)
Near-Term Renewal/Replacement CIP Projects (Years 1-10)	118.5
Long-Term Renewal/Replacement identified in CIP Projects (Years 11-40)	119.7
Long-Term Renewals of Existing Assets in AMP (Years 11-40)	270.1
Subsequent Renewals (Years 11-40)	33.3
System-Wide Improvement Projects (Years 1-10)	188.7
System-Wide Improvement Projects (Years 11-40)	107.2
Total Forecasted Capital Cost	**837.5**

To determine the recommended annual funding level, the total estimated capital cost was adjusted for the existing beginning fund balance, the required minimum fund balance at the end of the planning period based on Zone 7's reserve policy, and the capital costs of projects that are to be debt or grant funded.

The projected Fund 120 balance of $80.3 million as of June 30, 2026, was deducted from the total capital need. In addition, Zone 7's reserve policy for Fund 120 requires the minimum fund balance at the end of a fiscal year to be maintained at 100% of the following year's planned pay-go capital expenditures. This amount was calculated using the forecasted capital need for

the second-to-last year of the 40-year analysis period. In order to develop a practical funding strategy for the AMP and ensure that the funding level would be sufficient to meet the capital funding needs for the immediate ten-year CIP period (FY 2026-27 through FY 2035-36), the determination of the funding need assumes debt-financing for the construction phase (Fund 120 portion) of Chain of Lakes Conveyance System and an anticipated $25 million grant for Mocho PFAS Treatment Plant.

Based on these adjustments, the total funding need decreased from $837.5 million to $651.1 million as shown in Table ES-2. For the 40-year planning period, the funding need averages to $16.3 million per year (2026 dollars).

Table ES-2. Net Forecasted Capital Funding Need (2026 $ millions, Fund 120 portion)

	($2026 Millions)
Total Forecasted Capital Funding Need	$837.5
Less: Projected Fund 120 Balance [a]	$80.3
Less: Capital Costs of Projects to be Debt or Grant Funded [b]	$127.8
Plus: Required Remaining Fund 120 Balance at end of Planning Period [c]	$21.6
Net Forecasted Capital Funding Need Adjusted for Debt and Grant Funding, FY 2026-27 through FY 2065-66	$651.1
Planning Period (FY 2026-27 – FY 2065-66)	40 Years
Average Annual Funding Level [d]	**$16.3/year**
Annual Debt Repayment [e]	**$9.1/year**

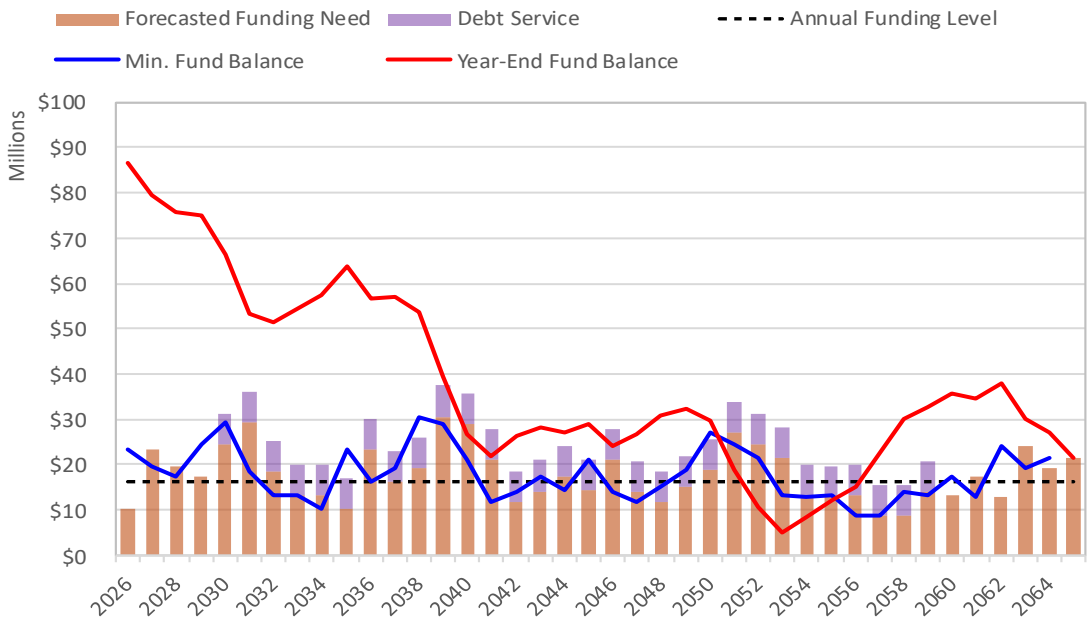
a. Projected fund balance deducted from total forecasted funding need; excludes $6.3M designated to the rate stabilization fund which was established under the Agency's Water Revenue Bonds, 2018 Series A.
b. As the AMP planning period begins in FY 2026-27, the FY 2026-27 construction capital cost is not included. However, the debt service payment is included in the FY 2026-27 Budget.
c. Per Zone 7's reserve policy, 100% of the next year's annual costs is required to be held in reserve. Added to forecasted funding need.
d. Recommended pay-as-you-go funding level does not include inflation and will be adjusted annually for inflation based upon the Engineering News Record San Francisco Construction Cost Index.
e. Assumes an average debt service payment of $9.1 million per year based on a 4% interest rate and escalated project costs. Actual costs will depend on the type of financing received, interest rates, and the duration of the borrowing. Project that is assumed to be partially funded by debt is the Chain of Lakes Conveyance System.

The current (FY 2025-26) annual funding level is $16.3 million per year (2026 dollars). It is recommended that the annual funding level be maintained at $16.3 million per year for FY 2026-27 and adjusted annually starting in FY 2027-28 to reflect inflation.

Based on the recommended annual funding level and forecasted renewal and SWI funding needs, the estimated end of year Fund 120 balances in comparison to the minimum fund balance required through FY 2065-66 is shown in Figure ES-2. The figure indicates that the recommended annual funding level and current available Fund 120 balance provide sufficient revenue to fund the forecasted capital requirements for the 40-year planning period, with the exception of underfunding (ranging from approximately $1.2 million to $11 million each year) in FY 2051-52 to FY 2055-56 (years 26 through 30). As Zone 7 updates the budget every two

years and the AMP and CIP every five years, updates to long-term needs will ensure that funding needs and minimum fund balance requirements are continually met.

Figure ES-2. Funding Analysis, Forecasted Funding Needs and Forecasted Fund 120 Balances (2026 $ millions)



Recommendations for Future Updates

Zone 7 has identified opportunities to further strengthen its asset management practices and capital improvement planning. These opportunities build on the existing asset management framework and strengthen alignment with industry best practices. Key focus areas include modernizing and better integrating asset data systems, refining asset data governance to improve accuracy and accountability, standardizing condition assessment methodologies, and enhancing integration between capital planning tools and asset data sources. Continued refinement in these areas will enhance transparency, support more reliable long-term renewal and replacement forecasting, promote informed decision-making, and advance long-term financial sustainability.

1. INTRODUCTION AND BACKGROUND

This Asset Management Plan Update (2026 AMP Update) provides a summary of the findings and recommendations of the work done to update the long-term funding forecast and related renewal funding needs for Zone 7 Water Agency's (Zone 7) Asset Management Plan.

1.1. BACKGROUND

Zone 7 provides water to retailers serving approximately 270,000 residents in Pleasanton, Livermore, and Dublin, and to the Dougherty Valley area of San Ramon through a special agreement with the Dublin San Ramon Services District. Zone 7 also supplies untreated water for irrigation of 3,500 acres, primarily South Livermore Valley vineyards. Zone 7 remains committed to planning for both current and future needs, maintaining a high-quality, reliable water delivery system, and delivering exceptional water and service to the community.

The purpose of the Asset Management Plan (AMP) is to plan for and implement asset renewal projects such that Zone 7 can continue to provide high-quality, reliable water delivery to the residents of the Livermore-Amador Valley. Findings from this study support the development of the Water System Capital Improvement Plan (CIP).

Zone 7 initiated its first formal AMP in 2004, including the development of an asset registry and proposed methodology for forecasting long-term renewals, as described in the 2004 Asset Management Program Phase II Summary Report. As part of the 2011 AMP Update some of the definitions and methodologies were improved and updated along with significant changes to the long-term funding forecast methodology and the creation of asset classes to facilitate future data collection and decision-making. In the 2017 AMP Update, the long-term funding forecast was updated to reflect capital improvement projects that were completed and assets that were renewed since 2011. New and future projects were incorporated, and the long-term renewal of assets was added.

Zone 7's AMP has a planning horizon of 40 years. The 2026 AMP Update covers projects to be incorporated into the Water System CIP for the next ten years (i.e., FY 2026-27 through FY 2035-36, or "near-term") and the funding forecast for the subsequent 30 years (i.e., FY 2036-37 through FY 2065-66, or "long-term"). As part of the current update, the asset database and long-term funding forecast have been updated to reflect capital projects that were completed and assets that were renewed since the last update, new projects, and the long-term renewal of assets.

1.2. OBJECTIVES

The primary objectives of the 2026 AMP Update include the following:

- Update of the fixed asset registry to reflect asset renewals/replacements and capital projects completed between 2017 and 2025
- Identify capital renewal projects to maintain or improve the existing potable water infrastructure, resulting in a ten-year plan to incorporate into the FY 2026-27 CIP
- Forecast long-term funding requirements based on anticipated renewal/replacement projects and condition assessments, long-term renewal of existing assets through FY 2065-66, and system-wide improvement (SWI) needs
- Identify funding gaps using current funding rates, resulting in a recommended annual funding level

1.3. STAKEHOLDER INVOLVEMENT

During the development of this plan, several workshops were conducted with staff and management during 2024 and 2025 to identify updates to the asset registry, review and update assumptions for the replacement of specific asset classes, and develop capital projects. To identify necessary updates to the asset registry, workshops were conducted to review the existing asset data to determine which assets were to be retired, added, or updated. The previous assumptions regarding the original useful life and long-term replacement methodology of specific asset classes were also reviewed and modified. In addition, a series of workshops were held to review projects previously identified in the FY 2024-25 Interim Five-Year Water System Capital Improvement Plan and develop new capital projects. The workshops were held with staff from various sections, including Operations, Maintenance, Integrated Planning, Groundwater, Water Quality, Information Technology, Finance, and Water Supply Engineering.

The draft 2026 AMP Update and draft Fiscal Year 2026-27 Ten-Year Water System Capital Improvement Plan (FY 2026-27 Ten-Year CIP) were presented to the retailers at a meeting on January 20, 2026. The proposed draft plans were presented at the Board workshop on March 4, 2026, and adopted at the April 15, 2026, Board meeting.

1.4. REPORT ORGANIZATION

The 2026 Update is divided into five chapters. The first chapter presents general background information. The second chapter, Program Framework, discusses the guiding components that build the foundation for the AMP. Chapter 3, Near-Term Renewal, provides a review of the near-term asset renewal forecast methodology, the existing asset database, and discussion on renewal/replacement and system-wide improvements capital projects. Long-Term Funding Forecast is the fourth chapter and presents the long-term asset forecast methodology for renewals and system-wide improvements, funding analysis, and recommended annual funding level. Chapter 5 provides recommendations for future updates to streamline the asset management and capital improvement process moving forward.

1.5. TERMINOLOGY AND DEFINITIONS

The following terms and definitions are used in this report.

Table 1. Terminology and Definitions

Term	Definition
FY 2026-27 Ten-Year CIP	Fiscal Year 2026-27 Water System Ten-Year Capital Improvement Plan
AMP	Asset Management Plan
AMTools	Asset Management Tools - the Zone 7 asset registry database
Asset Class	Groups of assets with similar form and function
Asset Inventory (Asset Registry)	A detailed list of all infrastructure assets
CIP	Capital Improvement Plan
CMMS	Computerized Maintenance Management System
COF	Consequence of failure (a measure indicating the impact if an asset fails)
COL	Chain of Lakes
Condition Assessment	Evaluation of the physical condition of Zone 7's infrastructure including the identification of maintenance and repair needs
DVWTP	Del Valle Water Treatment Plant
FY	Fiscal year
GIS	Geographic Information System
LOF	Likelihood of failure (a measure indicating how soon an asset is likely to fail)
Long-Term	The next 30 years after the near-term period
MGDP	Mocho Groundwater Demineralization Plant
Near-Term	Capital planning horizon focusing on the next ten years
O&M	Operations and Maintenance
OUL	Original Useful Life
PFAS	Per- and polyfluoroalkyl substances
PPWTP	Patterson Pass Water Treatment Plant
R&R	Renewal and Replacement
Retailers	California Water Service Company, City of Livermore, City of Pleasanton, and Dublin San Ramon Services District
Risk Assessment	Process for identifying and evaluating potential risks to Zone 7's buried infrastructure
Risk Score	The numeric score calculated for a facility or asset based on the likelihood of failure and consequence of failure grading
RUL	Remaining Useful Life
SCADA	Supervisory Control and Data Acquisition
SWI	System-Wide Improvements
Zone 7	Zone 7 Water Agency

2. PROGRAM FRAMEWORK

This chapter describes Zone 7's Strategic Plan and organizational goals and the database used to develop the AMP analyses.

2.1. STRATEGIC PLAN AND LEVEL OF SERVICE GOALS

On November 20, 2024, the Board adopted the 2025-2029 Strategic Plan which establishes the Agency's framework for addressing current challenges and maintaining reliable and high-quality water and flood protection services to Livermore-Amador Valley. The Strategic Plan describes the Agency's vision, mission, goals required to achieve the mission, and initiatives to achieve each of the goals. For a complete description of the initiatives, refer to the Strategic Plan attached to the FY 2026-27 Ten-Year CIP. The Strategic Plan guides the identification and prioritization of capital projects to be incorporated into the CIP and AMP. The CIP and AMP support Strategic Plan Initiative 6 – Continue to effectively implement infrastructure projects in the Water System Capital Improvement Plan and Initiative 21 – Continue to effectively manage financial resources.

Mission

- We deliver safe, reliable, efficient and sustainable water and flood protection services.

Vision

- We provide excellent water and flood protection services to enhance the quality of life, economic vitality and environmental health of the communities we serve.

Values

- **Team** – We collaborate and are inclusive, valuing all perspectives to improve our services, systems, and organization.
- **Service** – We are responsive, respectful, and professional.
- **Fiscal Responsibility** – We are committed to ensuring the responsible and transparent management of public funds, adhering to the highest standards of accountability and efficiency.
- **Safety** – We are committed to public and employee safety.
- **Transparency** – We carry out our mission ethically and transparently, and with integrity.
- **Environmental Responsibility** – We deliver our services in an environmentally responsible manner considering the energy, climate, people, and natural resource stewardship.
- **Leadership** – We cultivate leaders and expect our agency to proactively lead and innovate.

Goals

- **Professional Workforce (Goal A)**: Preferred Employer for Skilled, Motivated, and Professional Staff
- **Reliable Water Supply and Infrastructure (Goal B):** Provide Customers with Reliable Water Supply and Infrastructure
- **Safe Water (Goal C):** Provide Customers with Safe Water in an Environmentally Responsible Manner
- **Groundwater Management (Goal D):** We Manage and Protect the Groundwater Basin as the State-Designated Groundwater Sustainability Agency
- **Effective Flood Protection (Goal E):** Provide an Effective System of Flood Protection
- **Effective Operations (Goal F):** Provide The Agency With Effective Leadership, Administration, and Governance
- **Stakeholder Engagement (Goal G):** Engage Our Stakeholders To Foster Understanding Of Their Needs, The Agency, And Its Functions
- **Fiscal Responsibility (Goal H):** Operate The Agency In A Fiscally Responsible Manner

Additionally, to ensure that the needs of Zone 7 customers are met, Zone 7 has set level of service goals consistent with its mission and as defined by adopted Board policies related to water supply and reliability and delivered water quality. These goals guide the development and implementation of the CIP and AMP. For a complete description of these goals, refer to the CIP and the Board resolutions attached to it.

2.2. FIXED ASSET INVENTORY

Zone 7 maintains a fixed asset inventory in a Microsoft Access database format called AMTools. This is a custom-developed application built in 2011 as part of the AMP update efforts. The application was developed to provide a central repository of asset information to support the asset management and capital improvement planning process. The application includes a user interface that provides several useful tools including:

- A location- and process-based asset hierarchy that enables the user to find desired asset information
- An asset class-based organization that allows the user to organize and compare assets with similar functions and characteristics
- The ability to manage key asset attributes (e.g., installation date, expected useful life, anticipated replacement date, replacement cost, and current asset value)
- Tools to capture important asset characteristics based on asset class (e.g., manufacturer, pump capacity, pump type, and model for pumps)
- Functions to capture asset condition and make adjustments to the remaining useful life based on the entered condition data

The asset database was reviewed and updated to reflect current water infrastructure. System improvements and upgrades were identified, and the database was updated to reflect the

current asset inventory. Additional asset updates were identified through review of the schedule of values from recently completed projects (e.g., DVWTP Ozonation Project, PPWTP Upgrades and Ozonation Project, MGDP Concentrate Conditioning System, Chain of Lakes PFAS Treatment Plant, Stoneridge PFAS Treatment Plant, and Valley Pump Station). Part of this effort included identifying assets that were retired, decommissioned, or demolished. These records were not deleted from the system, but the replacement values and replacement dates were removed so that they would not be incorporated into the analysis. Lastly, assets were added to the asset database based on the visual condition assessment described later in this report.

3. NEAR-TERM RENEWAL

This chapter presents the recommended near-term renewal CIP plan. The near-term renewal plan is based on project information provided by staff, projects identified during the visual condition assessment and risk modeling, and an analysis of the remaining useful lives of the assets in the asset management database. Because System-Wide Improvement (SWI) projects are funded by water rates through Fund 120, these costs are also included in the near-term funding plan. Unless noted otherwise, all costs and financial projections are presented in current (2026) dollars.

3.1. NEAR-TERM ASSET RENEWAL METHODOLOGY AND PROJECTS

Near-term renewals are those which will be implemented during the ten-year period from FY 2026-27 through FY 2035-36. These projects have been identified from two sources: projects identified by Zone 7 based on previous CIPs and current knowledge, and projects identified during the visual condition assessment and pipeline risk modeling.

3.1.1. Project Identified by Zone 7

Zone 7 has projects that have been defined through previous CIP efforts as well as potential projects identified by various sections. These projects have been compiled using existing CIP documentation and through a series of meetings with various sections. During the meetings, the CIP list was developed, verified, and expanded to capture all known key, upcoming capital needs. Anticipated start dates and costs were provided by staff.

The following is a brief description of the CIP projects identified by staff with over $10 million (2026 dollars) funded by Fund 120. A complete list of proposed projects identified by staff that are planned for the next ten years is provided in Table 2.

DVWTP and PPWTP HVAC and Improvements - The HVAC component of this project includes replacement of the following key equipment at DVWTP and PPWTP: boilers and appurtenances; air handling units and exhaust fans; air cooled chiller for the Laboratory

Building; associated system control and pressure valves, switches, appurtenances; and digital control systems. At DVWTP, the fire alarm panel will also be replaced. At PPWTP, renewal/replacements include tenant improvements, Clarifier 1 anode replacement, Clarifier 2 recoating and anode replacement, Chlorine Contact Basin modifications to the access hatches, level sensor location, and valves/actuators, and Clearwell 2 leak repair and replacement or seismic retrofit of the roof.

Maintenance Yard and Building - This project includes design and construction of a maintenance yard and building. Improvements include: 1) additional outdoor material storage and stockpile areas; 2) office building for staff including amenities such as a lunch area and file storage; 3) climate-controlled storage areas for temperature-sensitive equipment; 4) warehouse storage and work areas to support maintenance functions including electrical, SCADA/instrumentation, mechanical, general/carpentry, and chemicals; and 5) covered areas for maintenance vehicles and various equipment. Initial planning will be completed as part of the DVWTP Master Plan.

Silver Oaks Pump Station - This project consists of replacing the Silver Oaks Pump Station, including land acquisition, new electrical service, a new pump station building with electrical equipment, fencing and security, and backup power generation. The upgraded facility will improve system reliability and provide the necessary capacity to meet future water supply demands.

– BLANK –

Table 2. Renewal/Replacement CIP Projects Identified by Staff (2026 dollars, Fund 120 portion)

Project Name	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	FY 34-35	FY 35-36	Total
Asset Management Program	$12,500	$12,500	$12,500	$12,500	$400,000	$12,500	$12,500	$12,500	$12,500	$400,000	**$900,000**
Capital Improvement Program Management	$7,875	$7,875	$7,875	$7,875	$220,500	$7,875	$7,875	$7,875	$7,875	$220,500	**$504,000**
DVWTP and PPWTP HVAC and Improvements	$440,000	$5,000,000	$4,500,000	$600,000	$0	$0	$0	$0	$0	$0	**$10,540,000**
DVWTP Chemical Systems Replacement	$0	$0	$0	$200,000	$763,000	$2,400,000	$1,920,000	$0	$0	$0	**$5,283,000**
DVWTP Reliability Assessment	$0	$0	$0	$300,000	$0	$0	$0	$0	$0	$0	**$300,000**
DVWTP Reliability Improvements	$0	$0	$0	$0	$300,000	$900,000	$2,100,000	$1,700,000	$0	$0	**$5,000,000**
DVWTP Washwater Recovery Ponds Replacement	$0	$0	$0	$0	$0	$580,000	$1,680,000	$4,100,000	$3,270,000	$0	**$9,630,000**
DVWTP Wastewater System	$0	$90,000	$480,000	$780,000	$0	$0	$0	$0	$0	$0	**$1,350,000**
Emergency Generator Replacement	$0	$0	$600,000	$0	$500,000	$0	$0	$0	$0	$0	**$1,100,000**
Instrumentation Replacement	$0	$0	$0	$0	$150,000	$720,000	$0	$0	$0	$0	**$870,000**
Laboratory Equipment Replacement	$180,000	$220,000	$150,000	$100,000	$160,000	$80,000	$160,000	$50,000	$100,000	$250,000	**$1,450,000**
Maintenance Yard and Building	$0	$150,000	$1,290,000	$5,320,000	$4,260,000	$0	$0	$0	$0	$0	**$11,020,000**
MGDP HVAC and Fire System Replacement	$0	$0	$0	$0	$170,000	$720,000	$1,080,000	$0	$0	$0	**$1,970,000**
MGDP RO Membrane Replacement/Expansion	$0	$3,350,000	$890,000	$0	$0	$0	$0	$0	$0	$0	**$4,240,000**
Monitoring Well Replacements and Abandonments	$350,000	$0	$0	$0	$0	$0	$350,000	$0	$0	$0	**$700,000**
Patterson Pass Pipeline Expansion	$0	$0	$0	$0	$0	$120,000	$300,000	$666,000	$1,620,000	$1,134,000	**$3,840,000**
Pipeline Condition Assessments	$0	$0	$0	$0	$0	$0	$0	$0	$98,600	$197,300	**$295,900**
PPWTP Chemical Systems Replacement	$0	$0	$0	$0	$0	$0	$0	$130,000	$760,000	$1,310,000	**$2,200,000**
PPWTP Master Plan	$0	$0	$0	$87,600	$189,800	$0	$0	$0	$0	$0	**$277,400**
Production Well Pump Replacement	$0	$950,000	$250,000	$0	$400,000	$0	$400,000	$0	$400,000	$0	**$2,400,000**
Renewal/Replacement Projects (as needed) – Engineering Led	$900,000	$875,000	$875,000	$875,000	$875,000	$900,000	$875,000	$875,000	$875,000	$875,000	**$8,800,000**
Renewal/Replacement Projects (as needed) – Maintenance Led	$875,000	$875,000	$875,000	$875,000	$875,000	$875,000	$875,000	$875,000	$875,000	$875,000	**$8,750,000**
SCADA Upgrades and Replacements	$330,000	$330,000	$330,000	$330,000	$1,910,000	$330,000	$330,000	$330,000	$330,000	$1,910,000	**$6,460,000**
Silver Oaks Pump Station	$1,936,000	$696,000	$3,064,000	$3,064,000	$3,064,000	$1,024,000	$0	$0	$0	$0	**$12,848,000**
Transmission System Corrosion Protection	$0	$0	$0	$0	$0	$0	$0	$134,000	$241,000	$588,000	**$963,000**
Transmission System Plan and Hydraulic Model Update	$420,000	$180,000	$0	$0	$0	$0	$0	$0	$0	$0	**$600,000**
Turnout Replacements	$0	$0	$0	$0	$280,000	$1,900,000	$1,750,000	$280,000	$1,900,000	$1,750,000	**$7,860,000**
Vasco Pipeline Expansion	$0	$0	$0	$0	$0	$0	$0	$93,000	$235,000	$474,500	**$802,500**
Well Master Plan Implementation	$0	$0	$0	$0	$0	$3,000,000	$3,000,000	$1,500,000	$0	$0	**$7,500,000**
Total	**$5,451,400**	**$12,736,400**	**$13,324,400**	**$12,552,000**	**$14,517,300**	**$13,569,400**	**$14,840,400**	**$10,753,400**	**$10,725,000**	**$9,984,300**	**$118,453,800**

Notes: Costs are in dollars, at a 2026 price level, and do not include inflation. Projects have been developed in coordination with the FY 2026-27 CIP. Costs shown here represent the Fund 120 share; some projects will be partially funded by Fund 130. Values may not add due to rounding.

– BLANK –

3.1.2. Projects Identified During Visual Condition Assessment and Risk Modeling

The 2026 AMP Update included a visual condition assessment of above-ground assets and a tabletop risk assessment of buried pipelines to determine remaining useful life of assets and assets that require more detailed condition assessment. Both assessments were performed by HDR, Inc.

The above-ground visual assessment consisted of inspection of many of Zone 7's water facilities. Some facilities, such as the PFAS treatment plants and Valley Pump Station, were not inspected because they were recently constructed. Other facilities, such as Silver Oaks Pump Station and Dougherty Reservoir, were not visited because a capital project for its replacement was already planned or it was recently rehabilitated. The facilities inspected were:

- Water Treatment Plants
    - Del Valle Water Treatment Plant
    - Patterson Pass Water Treatment Plant
- Mocho Groundwater Demineralization Plant
- Kitty Hawk Pump Station
- Production Wells
    - Mocho Well 2
    - Mocho Well 3
    - Mocho Well 4
    - Stoneridge Well
    - Hopyard Well 6
    - Hopyard Well 9
    - Chain of Lakes Well 1
    - Chain of Lakes Well 2
    - Chain of Lakes Well 5

The assets at each facility were classified according to discipline (i.e., process mechanical, structural, electrical, and instrumentation/control) based on the asset class and inspected by an engineers with expertise in the appropriate discipline. The inspection team focused on assets that have reached or exceeded their expected use life, and assets that will reach the end of their useful life in the next ten years. For each asset assessed, renewal/replacement recommendations were developed, including a timeframe for implementation and cost estimate. Assets that needed renewal/replacement were grouped into new or existing capital projects. Several assets were added to existing capital projects and are addressed in the previous section. Assets that were grouped into newly developed projects were further evaluated by staff based on known condition and priority such that these projects are scheduled outside of the FY 2026-27 Ten-Year CIP; these projects are listed in Table 4 at the end of this section. Details of the visual assessment can be found in the Condition Assessment Report.

The below-ground risk assessment used the Zone 7 pipeline risk model originally developed as part of the 2011 AMP Update to identify and prioritize pipelines for condition assessment. Each pipeline received a relative risk score based on likelihood of failure parameters and consequence of failure parameters established in the 2011 AMP Update. The likelihood of failure parameters are material, age, history of breaks requiring repairs, condition of corrosion protection and monitoring, soil corrosivity, and soil liquefaction potential. The consequence of failure parameters are diameter, length, location (e.g., freeway crossing), ease of repair, and whether there is a redundant pipeline. The pipeline risk analysis results are shown in Figure 1 and Table 3. The pipelines with the highest risk scores (those pipelines in the upper-right quadrant of Figure 1 and which have a risk score above 200,000) were prioritized for condition assessment and included in the Pipeline Condition Assessments program developed for the FY 2026-27 Ten-Year CIP (see Table 3).

Figure 1. Pipeline Risk Analysis Results

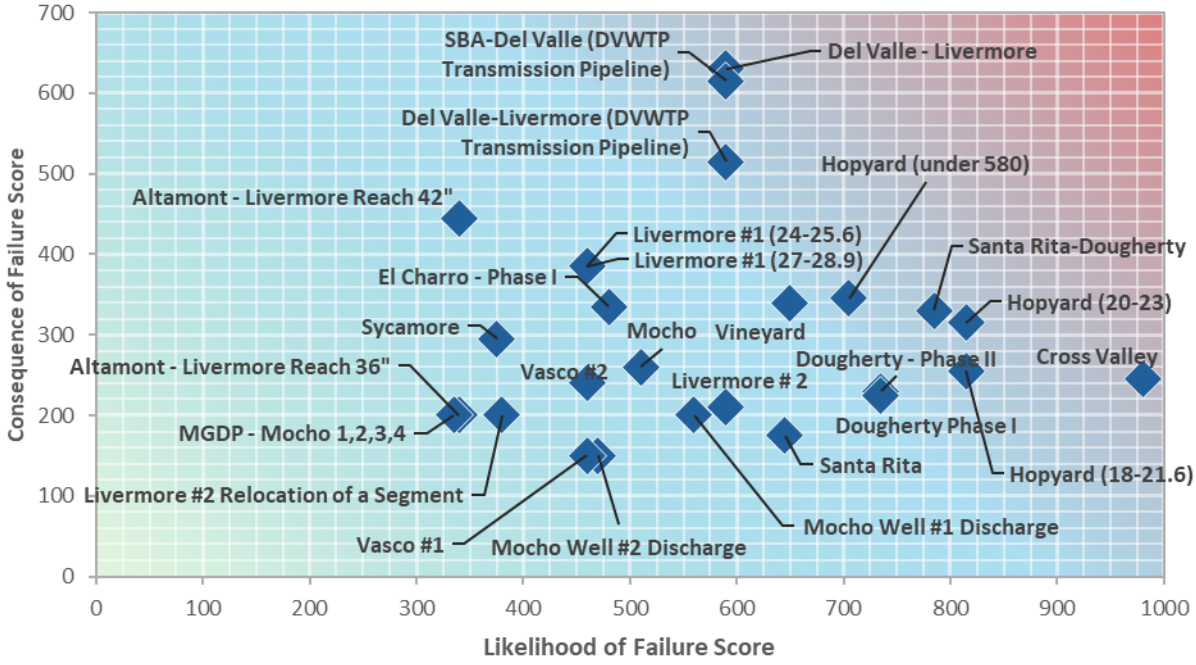


Table 3. Pipeline Risk Analysis Results

Pipeline	Consequence of Failure Score (CoF)	Likelihood of Failure Score (LoF)	Risk Score = CoF x LoF
Del Valle - Livermore	630	590	371,700
SBA-Del Valle (DVWTP Transmission Pipeline)	615	590	362,850
Del Valle-Livermore (DVWTP Transmission Pipeline)	515	590	303,850
Santa Rita-Dougherty	330	785	259,050
Hopyard (20-23)	315	815	256,725
Hopyard (under 580)	345	705	243,225
Cross Valley	245	980	240,100
Vineyard	340	650	221,000
Hopyard (18-21.6)	255	815	207,825
Livermore #1 (27-28.9)	385	460	177,100
Livermore #1 (24-25.6)	385	460	177,100
Dougherty - Phase II	230	735	169,050
Dougherty Phase I	225	735	165,375
El Charro - Phase I	335	480	160,800
Altamont - Livermore Reach 42"	445	340	151,300
Mocho	260	510	132,600
Livermore # 2	210	590	123,900
Santa Rita	175	645	112,875
Mocho Well #1 Discharge	200	560	112,000
Sycamore	295	375	110,625
Vasco #2	240	460	110,400
Livermore #2 Relocation of a Segment	200	380	76,000
Mocho Well #2 Discharge	150	470	70,500
Vasco #1	150	460	69,000
Altamont - Livermore Reach 36"	200	340	68,000
MGDP - Mocho 1,2,3,4	200	335	67,000

The recommended condition assessment technologies and costs were defined in the Transmission Pipeline Inspection Plan and used as the basis for the Below-Ground Asset Risk Analysis. The Inspection Plan recommended using cost-effective technology such as Smartball for initial condition assessments and to review the test results prior to using a more comprehensive, costlier inspection tool such as PipeDiver. Such condition assessment technologies do not require the pipeline to be taken out of service during the inspection and, depending on the device, can locate leaks and detect localized wall loss and areas of corrosion.

A description of the capital projects developed from the condition assessment and risk analysis is provided below. A summary of these projects is provided in Table 4. As mentioned earlier in this section of the report, several assets that were determined to need renewal or replacement were added to existing capital projects; this list only includes the newly developed projects from

the condition and risk assessments. Except for the Pipeline Condition Assessments, these projects are scheduled outside the planning period of the FY 2026-27 Ten-Year CIP.

Pipeline Condition Assessments - This project consists of a phased condition assessment program for the Agency's high priority pipelines. The condition assessment will evaluate structural integrity and hydraulic performance of each pipeline, and develop recommendations for future repairs or replacements. Priority pipelines include Del Valle-Livermore, DVWTP Transmission Pipeline, Santa Rita-Dougherty, Hopyard, Cross Valley, and Vineyard.

DVWTP Renewal and Replacements - The project scope includes mechanical, electrical, and structural improvements at DVWTP for systems that have reached the end of their useful lives. The mechanical improvements include replacing filtration control valves, influent flow control valve, settled water sample pump, backwash pumps 1 and 2, and fire booster pump. The electrical system improvements include upgrading the electrical equipment and instrumentation associated with the filtration system, booster pump station, and solids handling system, as well as main electrical panels and other equipment within the various electrical rooms (lab, main, service). Furthermore, the structural improvements include replacing the existing pipe restraints in the filtration pipe gallery, repairing cracks and spalling in the filtration pipe gallery, bulk chemical storage tank pads, thickener tank, Superpulsators 3 and 4, and Equalization Basin tank, and repairing the base of the filtration pipe gallery wall.

PPWTP Electrical Equipment Renewal and Replacement - This project includes planning, design, and construction of electrical system improvements at the PPWTP. Improvements include replacement of the MCCs in the analyzer room and for the backwash supply. Additional improvements include replacement of the LCPs at the clarifiers, PLC for the chemical systems, and various components in the main electrical room.

Production Well Electrical Renewal and Replacement - This project includes planning, design, and construction of electrical system improvements at the various production wells. Improvements include upgrading the electrical equipment at the Mocho, Hopyard, and Chain of Lakes Well Fields. This project also includes the repair of concrete cracks and spalling at the Mocho 3, Mocho 4, Hopyard 6 (including repair of splitting wooden beams using steel straps), Chain of Lakes 1, and Chain of Lakes 2 well sites. In addition, the standing water in the offline storage tank containment area will be removed and the sump pump replaced to prevent corrosion. At the Stoneridge well, the project will also repair corrosion along the base of the exterior walls and at the building pipe penetrations.

Table 4. Renewal/Replacement CIP Projects Identified from Condition and Risk Assessments, FY 2034-35 through FY 2042-43 (2026 dollars)

Project Name	FY 34-35	FY 35-36	FY 36-37	FY 37-38	FY 38-39	FY 39-40	FY 40-41	FY 41-42	FY 42-43	Total
DVWTP Renewal and Replacements	$0	$0	$0	$0	$1,169,800	$1,169,800	$2,598,700	$2,598,700	$2,598,700	**$10,135,500**
PPWTP Electrical Equipment Renewal and Replacement	$0	$0	$0	$150,000	$610,000	$897,000	$0	$0	$0	**$1,657,000**
Production Well Electrical Renewal and Replacement	$0	$0	$125,000	$591,000	$940,000	$0	$0	$0	$0	**$1,656,000**
Pipeline Condition Assessments	$98,600	$197,300	$98,600	$295,900	$197,300	$197,300	$0	$0	$0	**$1,085,000**
Total	**$98,600**	**$197,300**	**$223,600**	**$1,036,900**	**$2,917,100**	**$2,264,100**	**$2,598,700**	**$2,598,700**	**$2,598,700**	**$14,533,500**

Notes: Costs are in dollars, at a 2026 price level, and do not include inflation. Projects have been developed in coordination with the FY 2026-27 Ten-Year CIP. Values may not add due to rounding

– BLANK –

3.2. SYSTEM-WIDE IMPROVEMENT PROJECTS

This section describes the System-Wide Improvement (SWI) projects that are planned for the near-term (i.e., FY 2026-27 through FY 2035-36). SWI projects address enhancements to existing facilities to improve water quality, environmental compliance, safety, and operational flexibility. Because both renewal/replacement and SWI projects are funded by water rates through Fund 120, the near-term funding forecasts reflect the combined costs of these project categories.

SWI projects proposed within the FY 2026-27 to FY 2035-36 planning period are shown in. Table 5. These ten SWI projects totaling approximately $188.7 million, are funded wholly or in part by Fund 120. Notable SWI projects include:

Chain of Lakes Conveyance System - The Chain of Lakes Conveyance System is a project that converts retired gravel quarries into lakes - Lake I and Cope Lake - for water storage, collectively referred to as the Chain of Lakes. This project provides local surface water storage capacity, groundwater recharge and a conveyance system to store and recover water by connecting these lakes, DVWTP and the South Bay Aqueduct (SBA). The Project consists of constructing a new 42-inch diameter, 6.5-mile bidirectional pipeline, inlet and outlet facilities at Lake I, a pump station, and PFAS treatment facilities at DVWTP. The project would enable the conveyance and local storage of SWP water that would otherwise be lost or require non-local storage, thereby enhancing water supply reliability. It would capture surplus water during wet periods, provide additional supply during droughts, and provide local water availability in the event of an earthquake or other disruption to the South Bay Aqueduct.

Mocho PFAS Treatment Plant - This project consists of installing a PFAS treatment plant to restore water production of the Mocho wellfield and optimize operation of the existing Mocho Groundwater Demineralization Plant (MGDP) to improve groundwater basin salt management. Key components of the project include PFAS treatment vessels, piping, pump station, landscaping, and site beautification. This project will also replace electrical switchgear for Mocho Wells 3 and 4. This project ensures that all water delivered to customers meets or exceeds applicable drinking water standards, including anticipated new regulations for PFAS. Zone 7 was awarded a grant for $1.2 million from the California Department of Water Resources and is actively working to secure additional state and federal funding for this project.

– BLANK –

Table 5. System-Wide CIP Projects (2026 dollars, Fund 120 portion)

Project Name	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31	FY 31-32	FY 32-33	FY 33-34	FY 34-35	FY 35-36	Total
Chain of Lakes Conveyance System	$784,400	$1,404,500	$2,650,000	$1,795,110	$2,709,890	$11,585,800	$21,009,200	$40,089,200	$45,171,900	$0	**$127,200,000**
Chain of Lakes PFAS Treatment Plant Process Improvement Study	$350,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$350,000**
Chain of Lakes PFAS Treatment Plant Pump Station	$0	$0	$700,000	$1,870,000	$4,130,000	$3,300,000	$0	$0	$0	$0	**$10,000,000**
DVWTP Ammonia Tanks Improvements Project	$0	$0	$0	$60,000	$355,000	$630,000	$0	$0	$0	$0	**$1,045,000**
Electric Vehicle Charging Infrastructure Program	$0	$0	$0	$0	$0	$500,000	$650,000	$125,000	$375,000	$100,000	**$1,750,000**
Energy Master Plan Implementation	$0	$0	$500,000	$500,000	$500,000	$500,000	$0	$0	$0	$0	**$2,000,000**
Hopyard Wellfield Pipeline	$0	$120,000	$302,000	$520,000	$2,170,000	$840,000	$0	$0	$0	$0	**$3,952,000**
Mocho PFAS Treatment Plant	$9,339,623	$24,563,902	$5,877,335	$0	$0	$0	$0	$0	$0	$0	**$39,780,859**
Stoneridge Well Ammonia System Improvements	$0	$0	$0	$0	$0	$300,000	$1,500,000	$200,000	$0	$0	**$2,000,000**
Transmission System Line Valve Installation	$50,000	$0	$0	$0	$270,000	$0	$270,000	$0	$0	$0	**$590,000**
Total	**$10,524,000**	**$26,088,400**	**$10,029,300**	**$4,745,100**	**$10,134,900**	**$17,655,800**	**$23,429,200**	**$40,414,200**	**$45,546,900**	**$100,000**	**$188,667,900**

Notes: Costs are in dollars, at a 2026 price level, and do not include inflation. Projects have been developed in coordination with the FY 2026-27 Ten-Year CIP. Costs shown here represent the Fund 120 share; some projects are partially funded by Fund 130. Values may not add due to rounding.

– BLANK –

3.3. ASSET ANALYSIS

The asset registry was analyzed and updated based on the identified capital projects described above to verify that assets approaching or past their expected useful lives have been addressed and to support the long-term funding forecast. The assets were extracted from the AMTools database and prepared for the long-term funding forecast. Additional information and updates were applied based on staff knowledge regarding specific assets, including updated in-service dates where assets have been replaced in a recent project, retirement of assets that are obsolete, and extension of asset useful lives where the asset condition was known. These updates have been highlighted and documented in the long-term AMP model to supplement the updates incorporated into the AMTools database.

As part of the 2011 AMP Update, asset classes were developed and an original useful life (OUL) was assigned to each asset class. Additional asset classes were identified during the 2017 AMP Update and OUL information was refined during the current 2026 AMP Update as Zone 7 obtained additional information on its assets. The asset classes and their respective OUL are listed in Table 6. Additional information regarding updates to the useful life approach is provided in the next section on the long-term asset renewal forecast (Section 4.1).

These asset class OUL estimates have been used to identify the next replacement year for each of the assets. If an asset is part of a planned capital project, the completion year of the project is used for the first replacement year of the asset instead of the projected replacement year based on the asset class.

Table 6. Asset Classes and Original Useful Life (OUL)

Asset Type (Discipline)	Asset Class	OUL (Years)	Useful Life Source
Mechanical	Filtration Media - Membranes	10	Owner's Judgment
	Filtration Media - Conventional	30	Owner's Judgment
	Filter Underdrains	50	Owner's Judgment
	Hypochlorite System	20	Owner's Judgment
	HVAC	20	Owner's Judgment
	Mechanical/Electrical/Instrumentation/Piping	Varies	Owner's Judgment
	Motor	30	Engineer's Judgment
	Pumps	30	Engineer's Judgment
	Pumps - Chemical	20	Owner's Judgment
	Pumps - Well	10	Owner's Judgment
	Rotating Equipment	25	Engineer's Judgment
	Specified Equipment	25	Owner's Judgment
	Valves	25	Engineer's Judgment
	Well Casing	50	Owner's Judgment
	Well - Arch Mud Rot Combo	50	Owner's Judgment
	Well - Hollow Stem Auger	50	Owner's Judgment
	Well - Nested	50	Owner's Judgment
	Well - Sonic	50	Owner's Judgment
Structural	Civil/Sitework	75	Owner's Judgment
	Coating	20	Owner's Judgment
	Cathodic Protection System	10	Owner's Judgment
	Electrolysis Test Stations	75	Owner's Judgment
	Roof	30	Owner's Judgment
	Structural/Architectural	75	Owner's Judgment
	Tank - Ammonia	30	Owner's Judgment
	Tank – Chemical	20	Owner's Judgment
	Tank – HDPE Chemical	20	Owner's Judgment
	Tanks	50	Engineer's Judgment
	Turnout	50	Owner's Judgment
Electrical	Power Distribution	30	Engineer's Judgment
	Power Distribution - Generator Systems	30	Engineer's Judgment
	Power Distribution - Variable Frequency Drives	15	Owner's Judgment
Instrumentation	Instrumentation - Radios	10	Owner's Judgment
	Instrumentation - Turbidimeters	10	Engineer's Judgment
	Instrumentation - Analyzers	15	Engineer's Judgment
	Instrumentation - General Instrumentation	25	Owner's Judgment
Pipeline	Piping - Above Ground	75	Owner's Judgment
	Piping - Buried	75	Engineer's Judgment
	Valves w/Actuator	20	Owner's Judgment

4. LONG-TERM FUNDING FORECAST

This chapter presents the long-term funding methodology, requirements to support both near-term and long-term renewal and SWI needs, funding analysis, and recommended annual funding level to support renewal and SWI needs through FY 2065-66. Unless noted otherwise, all costs and financial projections are presented in current (2026) dollars.

4.1. LONG-TERM ASSET RENEWAL FUNDING FORECAST

In 2011, Zone 7 updated its methodology for forecasting long-term asset renewal budgets. The new methodology transitioned from budgeting asset replacements at 50% of its original useful life (OUL), as prescribed in the 2004 AMP update, to a 100% OUL model. For the 2026 AMP Update, Zone 7 continues to utilize the 100% OUL methodology as its primary long-term asset renewal approach, with refinements for two asset classes – pipelines and structural/architectural assets. The revised approach for these two asset classes is further described below.

- **Pipeline Assets**

  Zone 7 operates and maintains approximately 40 miles of large (up to 48-inch) transmission pipelines constructed between 1953 and 2010, and various above-ground piping at its water production facilities. While the 2011 AMP Update assumed replacement of below-ground pipeline and above-ground pipelines assets at the end of a 75-year and 40-year lifespan, respectively, Zone 7 will transition to a condition-based life extension strategy.

  Consistent with industry practice, this proactive strategy prioritizes periodic inspections, routine maintenance, and targeted rehabilitation to extend the useful life of pipelines, rather than defaulting to the cost of full replacement. Accordingly, for pipeline assets, Zone 7 has transitioned from age-based asset management program approach to a condition-based life extension program, the Pipeline Renewal and Replacement Program (PRRP). The PRRP improves system reliability, extends asset longevity , and reduces the risk of costly, unscheduled repairs.

  The PRRP allocates funding to support proactive maintenance and life extension for both below-ground and above-ground pipelines. For below-ground piping, the PRRP allocates $7 million every five years to fund maintenance and monitoring, including corrosion protection, condition assessments and inspections, and target rehabilitation or replacement of pipe segments, and increasing to $11.5 million in the last two five-year cycles of the 40-year planning period to address aging pipelines that may have more extensive rehabilitation needs. For above-ground piping, $500,000 every five years is allocated to rehabilitate exterior pipe coating systems and to perform occasional repairs

to extend useful life. Funding levels are informed by past project experience, industry studies, and historical costs. This updated, condition-based approach reduces the total long-term funding amount for pipeline assets from $258 million to $45 million.

- **Structural and Architectural Assets**

  Zone 7 generally has two types of structural and architectural assets: buildings that support administrative functions (e.g. operations building), and treatment processes (water-bearing structures that support the treatment of raw water supplies). The 2011 AMP Update assumed replacement of structural and architectural assets at 75 years. Similar to the approach for pipeline assets, Zone 7 has transitioned from age-based asset management program approach to a condition-based life extension program.

  The Asset Management Plan allocates funding to support proactive maintenance and life extension for both structural and architectural assets. Typical maintenance or repair may consist of localized repair of cracks, leaks, and spalling, or the application of specialized coating for water-bearing structures. Funding levels are informed by past project experience, industry studies, and historical costs. This updated, condition-based approach reduces the total long-term funding amount for structural and architectural assets from $53 million to $10.5 million. To remain conservative, this modified approach was not applied to critical components of the water treatment process.

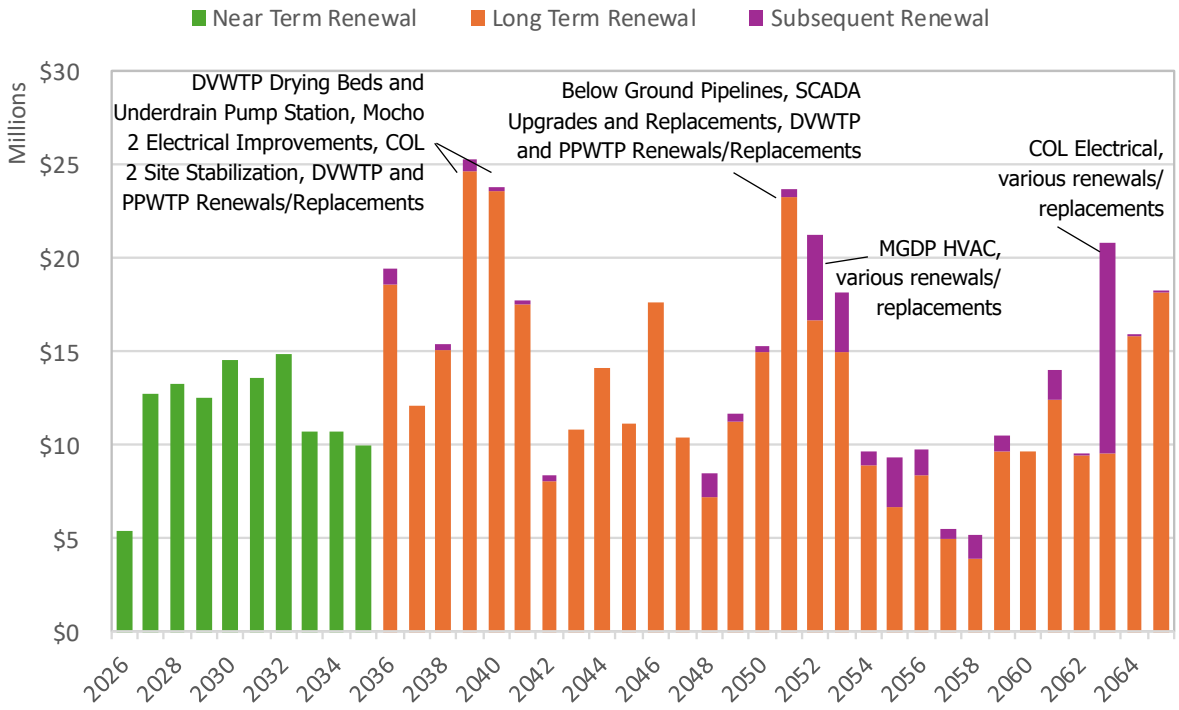
Long-Term Renewal Forecast

The long-term renewal forecast includes the following components:

- Costs associated with capital projects that are forecasted to occur between FY 2036-37 and FY 2065-66 (includes recurring costs for projects such as Laboratory Equipment Replacement, SCADA Upgrades and Replacements, and Production Well Pump Replacement)
- Replacement costs for existing assets that are forecasted to occur between FY 2036-37 and FY 2065-66
- Subsequent replacements of assets that were originally replaced in the near-term that will again reach 100% of OUL between FY 2036-37 and FY 2065-66

The projected near-term and long-term renewal needs from FY 2026-27 through FY 2065-66 are shown in Figure 2 and described further in Chapter 5.

Figure 2. Near-term and Long-Term Renewal Funding Forecast (2026 $ millions, Fund 120 portion)



To provide additional insight into the data presented in this section, the ten highest value asset classes are listed in Table 7.

Table 7. Largest Contributing Asset Classes to Long-term Renewal Funding (2026 $ millions, Fund 120 portion)

Asset Class	Long-Term Renewal Funding, FY 2036-37 - FY 2065-66 ($2026 Millions)	Percent of Total Long-Term Renewal Funding [a]
Pipelines	$45.00	11%
Structural/Architectural	$39.50	9%
Civil/Sitework	$38.80	9%
Instrumentation	$35.60	8%
Specified Equipment	$23.20	5%
Power Distribution	$22.50	5%
Pumps	$10.90	3%
Coating	$9.90	2%
Turnout	$9.70	2%
Tank - Chemical	$5.40	1%

[a] Total Long-Term Renewal Funding (FY 2036-37 through FY 2065-66) is approximately $423 million.

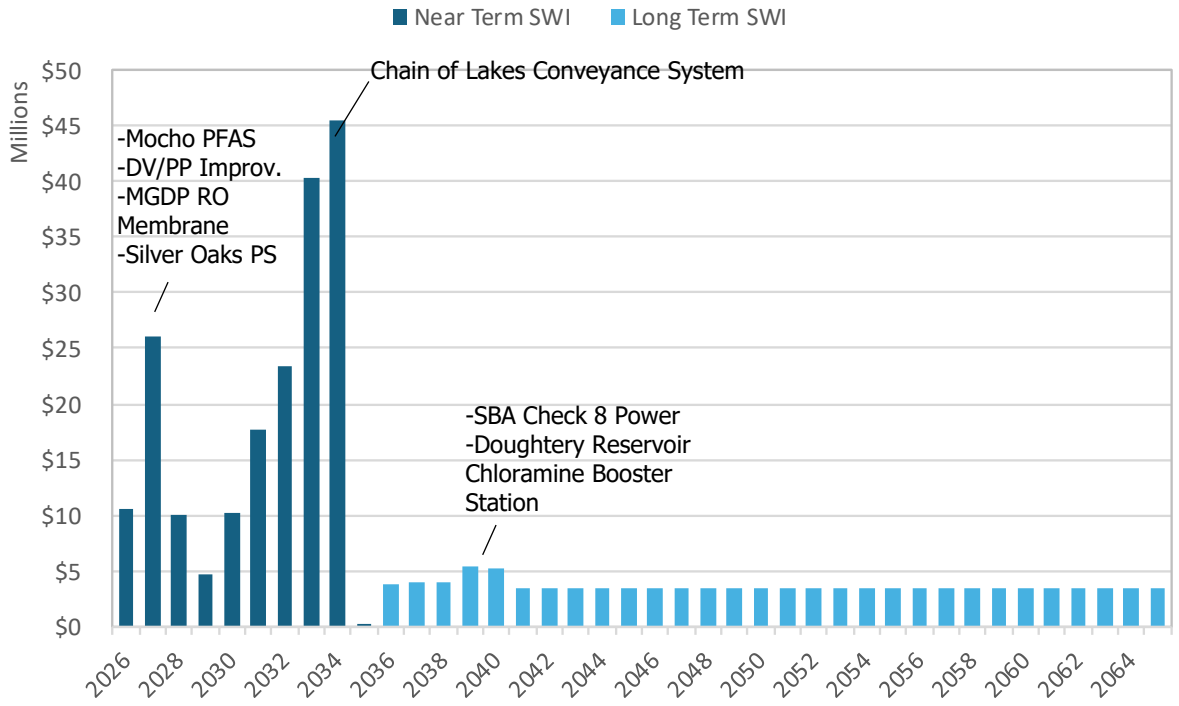
4.2. LONG-TERM SYSTEM-WIDE IMPROVEMENTS FUNDING FORECAST

Renewal projects focus on renewal or replacement of existing facilities to maintain the established level of service to existing Zone 7 customers. System-wide improvement (SWI) projects address enhancements to existing facilities to improve water quality, environmental compliance, safety, and operational flexibility. Because both renewal/replacement and SWI projects are funded by water rates through Fund 120, the near-term and long-term funding forecasts incorporate the combined costs of both project categories.

It is reasonable to anticipate that Zone 7 will continue with system-wide improvements beyond the FY 2026-27 Ten-Year CIP planning period to meet future regulatory requirements and other needs. Therefore, to support the long-term renewal forecast it is necessary to develop an assumption regarding future SWI funding needs beyond those projects already planned. For the rest of the AMP planning period from FY 2036-37 through FY 2065-66, an average yearly funding level of $3.4 million is assumed based on the average of SWI costs over the next ten years, excluding large projects.

The projected near-term and long-term SWI costs from FY 2026-27 through FY 2065-66 are shown in Figure 3 and described further in Chapter 5.

Figure 3. Near-Term and Long-Term System-Wide Improvements Funding Forecast (2026 $ millions, Fund 120 portion)



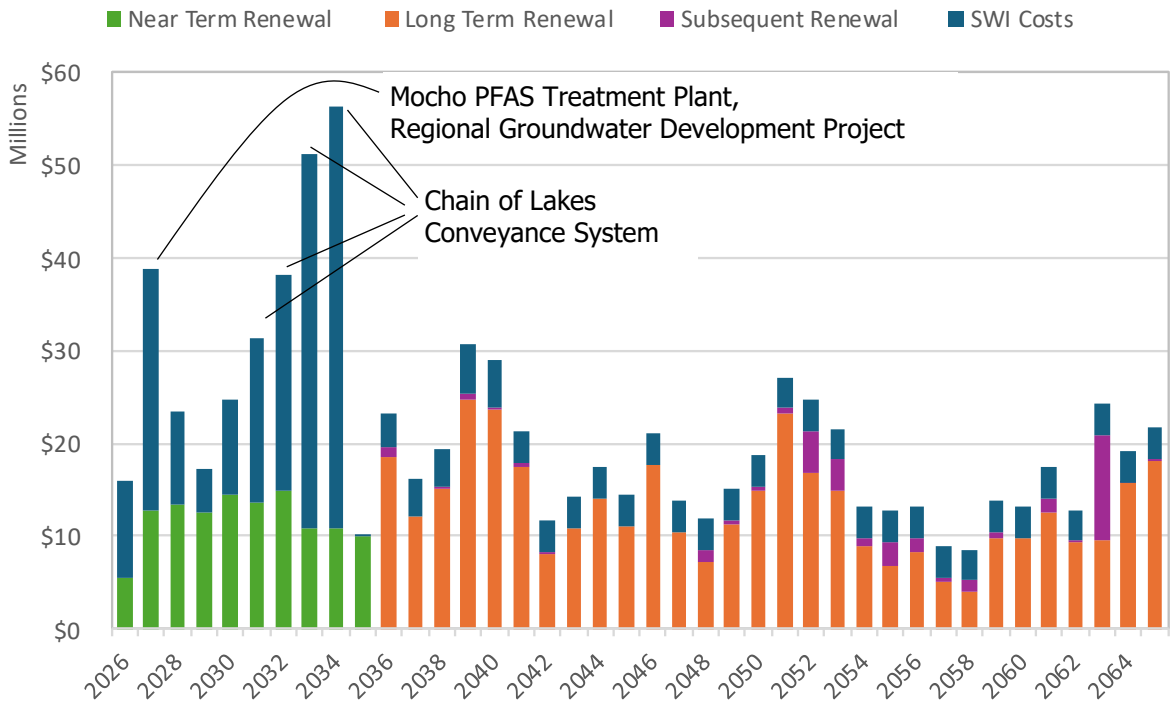
5. FUNDING ANALYSIS AND RECOMMENDED ANNUAL FUNDING LEVEL

The recommended funding level described in this section is based on the forecasted capital expenditures for total renewal costs, including near- and long-term renewal costs, as well as SWI costs. The basis and assumptions for near-term, long-term, and SWI costs were previously described in this report.

5.1. FUNDING ANALYSIS

The total renewal and SWI funding needs are illustrated in Figure 4 and included in detail in Table 8.

Figure 4. Total Forecasted Renewal and SWI Funding Requirements, FY 2026-27 – FY 2065-66 (2026 $ millions, Fund 120 portion)



As shown in Table 8, the total estimated capital cost for renewal and SWI projects between FY 2026-27 and FY 2065-66 is approximately $837.5 million (2026 dollars). The total cost for each component of the funding forecast is summarized in Table 8. A complete listing of annual costs for each component of the funding forecast is provided in Table 9. Including planned projects, the total forecasted renewal funding requirement from FY 2026-27 through FY 2065-66 is approximately $541.6 million (2026 dollars), with approximately $118.5 million for projects between FY 2026-27 and FY 2035-36 (near-term), and approximately $423 million in costs from

FY 2036-37 through FY 2065-66 (long-term). Including planned projects, the total forecasted SWI costs from FY 2026-27 through FY 2065-66 is approximately $295.9 million (2026 dollars), with approximately $188.7 million for projects between FY 2026-27 and FY 2035-36 (near-term), and $107.2 million in costs from FY 2036-37 through FY 2065-66 (long-term).

Table 8. Total Forecasted Renewal and SWI Funding Requirements, FY 2026-27 – FY 2065-66 (2026 $ millions, Fund 120 portion)

Funding Forecast Component	Total Capital Cost, FY 2026-27 - FY 2065-66 ($2026 Millions)
Near-Term Renewal/Replacement CIP Projects (Years 1-10)	118.5
Long-Term Renewal/Replacement identified in CIP Projects (Years 11-40)	119.7
Long-Term Renewals of Existing Assets in AMP (Years 11-40)	270.1
Subsequent Renewals (Years 11-40)	33.3
System-Wide Improvement Projects (Years 1-10)	188.7
System-Wide Improvement Projects (Years 11-40)	107.2
Total Forecasted Capital Cost	**837.5**

Table 9. Total Renewal and SWI Funding Needs (2026 $M, Fund 120 portion)

Year	Renewal and Replacement ($2026 Millions)				System-Wide Improvements ($2026 Millions)	Total Project Costs ($2026 Millions)
	Near-Term, CIP Projects	Long-Term, CIP Projects	Long-Term, Existing Assets	Subsequent, Existing Assets		
2026	5.5	0.0	0.0	0.0	10.5	16.0
2027	12.7	0.0	0.0	0.0	26.1	38.8
2028	13.3	0.0	0.0	0.0	10.0	23.4
2029	12.6	0.0	0.0	0.0	4.7	17.3
2030	14.5	0.0	0.0	0.0	10.1	24.7
2031	13.6	0.0	0.0	0.0	17.7	31.2
2032	14.8	0.0	0.0	0.0	23.4	38.3
2033	10.8	0.0	0.0	0.0	40.4	51.2
2034	10.7	0.0	0.0	0.0	45.5	56.3
2035	10.0	0.0	0.0	0.0	0.1	10.1
2036	0.0	4.0	14.5	0.9	3.8	23.3
2037	0.0	5.9	6.2	0.0	4.0	16.1
2038	0.0	11.6	3.5	0.2	4.0	19.4
2039	0.0	12.8	11.9	0.7	5.3	30.6
2040	0.0	9.7	13.9	0.2	5.2	29.0
2041	0.0	7.0	10.5	0.2	3.4	21.2
2042	0.0	5.1	3.0	0.2	3.4	11.7
2043	0.0	2.1	8.7	0.0	3.4	14.2
2044	0.0	2.9	11.3	0.0	3.4	17.5
2045	0.0	2.7	8.4	0.0	3.4	14.5
2046	0.0	4.1	13.5	0.0	3.4	21.0
2047	0.0	2.1	8.4	0.0	3.4	13.9
2048	0.0	2.5	4.7	1.2	3.4	11.9
2049	0.0	2.1	9.2	0.4	3.4	15.0
2050	0.0	3.5	11.5	0.4	3.4	18.7
2051	0.0	3.7	19.6	0.4	3.4	27.2
2052	0.0	2.5	14.2	4.5	3.4	24.6
2053	0.0	2.1	12.8	3.3	3.4	21.6
2054	0.0	2.5	6.4	0.8	3.4	13.1
2055	0.0	2.7	4.0	2.6	3.4	12.7
2056	0.0	4.5	3.9	1.4	3.4	13.2
2057	0.0	2.1	2.9	0.5	3.4	8.9
2058	0.0	2.5	1.4	1.2	3.4	8.6
2059	0.0	2.1	7.6	0.8	3.4	13.9
2060	0.0	3.1	6.6	0.0	3.4	13.1
2061	0.0	3.7	8.7	1.6	3.4	17.4
2062	0.0	2.9	6.5	0.1	3.4	12.9
2063	0.0	2.1	7.4	11.3	3.4	24.3
2064	0.0	2.5	13.3	0.1	3.4	19.2
2065	0.0	2.7	15.5	0.1	3.4	21.6
Total	**118.5**	**119.7**	**270.1**	**33.3**	**295.9**	**837.5**

Note: Values may not add due to rounding.

To determine the recommended annual funding level, a few adjustments need to be applied. The projected Fund 120 balance of $80.3 million as of June 30, 2026, was deducted from the total capital need. In addition, Zone 7's reserve policy for Fund 120 requires the minimum fund balance at the end of a fiscal year to be maintained at 100% of the following year's planned pay-go capital expenditures. This amount was calculated using the forecasted capital need for the second-to-last year of the 40-year analysis period.

In order to develop a practical funding strategy for the AMP and ensure that the funding level would be sufficient to meet the capital funding needs for the FY 2026-27 through FY 2035-26 planning horizon, the determination of the funding need assumes debt-financing for the construction phase (Fund 120 portion) of Chain of Lakes Conveyance System and an anticipated $25 million grant for Mocho PFAS Treatment Plant.

Based on these adjustments, the total funding need decreased from $837.5 million as described in Table 9 to $651.1 million as shown in Table 10. For the 40-year planning period, the funding need averages to $16.3 million per year (2026 dollars).

Table 10. Net Forecasted Capital Funding Need (2026 $ millions, Fund 120 portion)

	($2026 Millions)
Total Forecasted Capital Funding Need	$837.5
Less: Projected Fund 120 Balance [a]	$80.3
Less: Capital Costs of Projects to be Debt or Grant Funded [b]	$127.8
Plus: Required Remaining Fund 120 Balance at end of Planning Period [c]	$21.6
Net Forecasted Capital Funding Need Adjusted for Debt and Grant Funding, FY 2026-27 through FY 2065-66	$651.1
Planning Period (FY 2026-27 – FY 2065-66)	40 Years
Average Annual Funding Level [d]	**$16.3/year**
Annual Debt Repayment [e]	**$9.1/year**

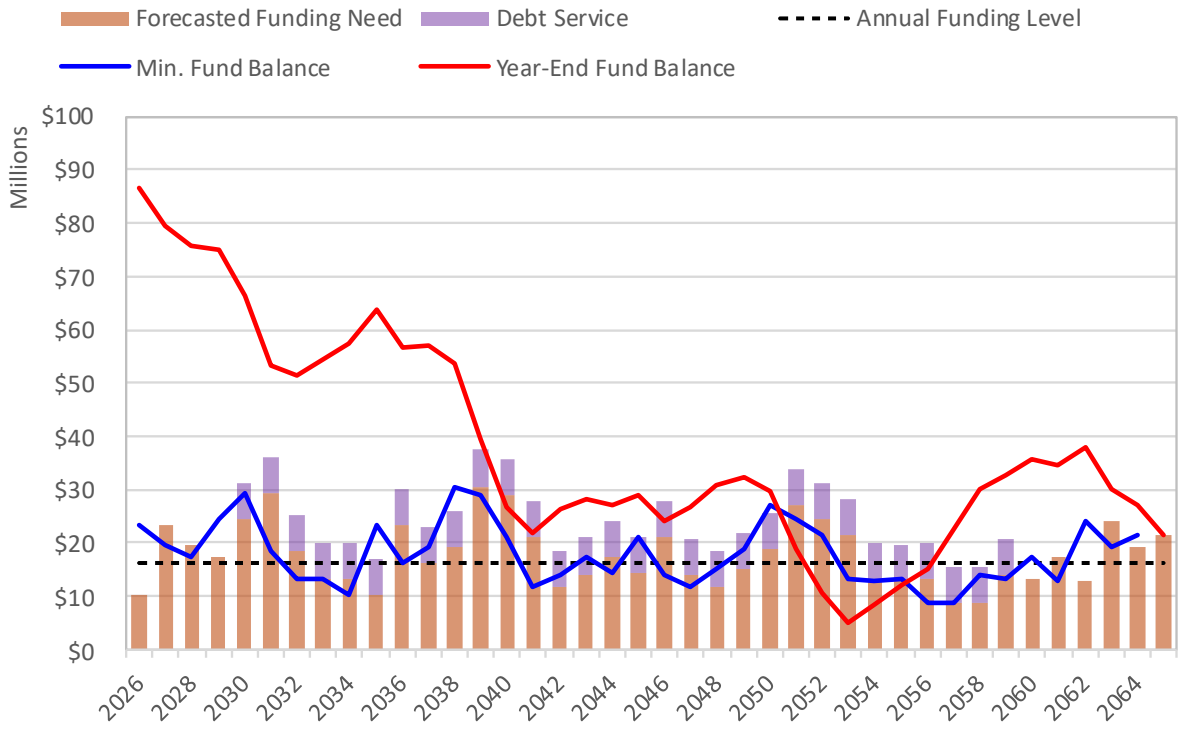
a. Projected fund balance deducted from total forecasted funding need; excludes $6.3M designated to the rate stabilization fund which was established under the Agency's Water Revenue Bonds, 2018 Series A.
b. As the AMP planning period begins in FY 2026-27, the FY 2026-27 construction capital cost is not included. However, the debt service payment is included in the FY 2026-27 Budget.
c. Per Zone 7's reserve policy, 100% of the next year's annual costs is required to be held in reserve. Added to forecasted funding need.
d. Recommended pay-as-you-go funding level does not include inflation and will be adjusted annually for inflation based upon the Engineering News Record San Francisco Construction Cost Index.
e. Assumes an average debt service payment of $9.1 million per year based on a 4% interest rate and escalated project costs. Actual costs will depend on the type of financing received, interest rates, and the duration of the borrowing. Project that is assumed to be partially funded by debt is the Chain of Lakes Conveyance System.

5.2. RECOMMENDED ANNUAL FUNDING LEVEL

The current (FY 2025-26) annual funding level is $16.3 million per year (2026 dollars). The average annual funding level determined by the analysis presented in this report is $16.3 million per year (2026 dollars). As such, it is recommended that the annual funding level be maintained at $16.3 million per year for FY 2026-27 and adjusted annually starting in FY 2027-28 to reflect inflation.

Based on the recommended annual funding level and forecasted renewal and SWI funding needs, the estimated end of year Fund 120 balances in comparison to the minimum fund balance required through FY 2065-66 is shown in Figure 5. The figure indicates that the recommended annual funding level and current available Fund 120 balance provide sufficient revenue to fund the forecasted capital requirements for the 40-year planning period, with the exception of underfunding (ranging from approximately $1.2 million to $11 million each year) in FY 2051-52 to FY 2055-56 (years 26 through 30). As Zone 7 updates the budget every two years and the AMP and CIP every five years, updates to long-term needs will ensure that funding needs and minimum fund balance requirements are continually met.

Figure 5. Funding Analysis, Forecasted Funding Needs and Forecasted Fund 120 Balances (2026 $ millions)



6. RECOMMENDATIONS FOR FUTURE UPDATES

This chapter outlines opportunities to strengthen Zone 7's asset management practices and capital improvement planning. These opportunities build on Zone 7's existing asset management framework and strengthen alignment with industry best practices. Key focus areas include modernizing and better integrating asset data systems, refining asset data governance to improve accuracy and accountability, standardizing condition assessment methodologies, and enhancing integration between capital planning tools and asset data sources. Continued refinement in these areas will enhance transparency, support more reliable long-term renewal and replacement forecasting, promote informed decision-making, and advance long-term financial sustainability.

6.1. ASSET INVENTORY

A complete, accurate, and up-to-date asset inventory is a foundational element of an asset management system. An accurate asset inventory supports sound capital and maintenance planning, promotes consistency in data analysis and strengthens confidence in decision-making amongst agency staff, stakeholders, and customers.

Zone 7 maintains an asset inventory in a Microsoft Access database developed in 2011. The database provides a user interface for updating and maintaining asset information. This database currently operates as a stand-alone system and is separate from other asset management tools, including capital planning and risk modeling spreadsheets, geographic information system (GIS), and the computerized maintenance management system (CMMS).

Because these systems are not fully integrated, asset information can be duplicative, inconsistent, or difficult to reconcile. Improving integration and governance of asset data will streamline analyses and enhance long-term planning efforts.

Data integration. The Microsoft Access database presents functional limitations relative to more modern, integrated asset management system. Zone 7 will evaluate opportunities to consolidate asset data systems and modernize technology platforms. Many CMMS solutions integrate asset inventories with GIS, capital planning, and maintenance management needs. Improved integration would enhance data accessibility, consistency, and usability across departments.

Refinement of the Asset Data Management Plan. As new assets are added and existing assets are updated over time, the asset database must be periodically updated to ensure accuracy and completeness. To support this objective, Zone 7 will refine the asset data management plan to facilitate consistent and accurate data updates. Key elements may include:

- Standard definitions for an asset to achieve a consistent level of detail

- Specification of required asset attributes which include common attributes for all assets and asset-class specific attributes
- Standard procedures and workflows for updating asset information
- Definition of roles and responsibilities for data management
- Identification of required reports and other key outputs

Asset data update. Once the asset data sources are consolidated and the asset data management plan is refined, Zone 7 will conduct a comprehensive review and update of the asset registry.

6.2. CONDITION ASSESSMENT PROGRAM

Asset condition assessment is an essential part of the capital improvement planning process. Consistent collection, organization, evaluation, and analysis of condition assessment data across CIP updates strengthens long-term planning and improves the reliability of renewal and replacement funding forecasts.

Since 2004, Zone 7 has conducted multiple condition assessment efforts to support updates to the Water System Capital Improvement Program. Methodologies and analytical approaches have varied between AMP updates. To improve consistency and comparability in future updates, Zone 7 will endeavor to standardize the data collection and evaluation process. This effort will include applying consistent evaluation criteria, capturing renewal and replacement recommendations, updating expected service life estimates, ensuring timely incorporation of results into the asset registry, and expanding the asset registry to track associated capital projects.

6.3. CAPITAL PLANNING

Integration between asset management and capital planning is necessary to maintain consistency between future Water System Capital Improvement Plans and long-term replacement and renewal planning. Integrating capital planning tools with authoritative asset data sources will improve planning efficiency and enhance consistency between updates.

Current long-term renewal and replacement projections incorporate existing assets that may require multiple replacements over the 40-year planning horizon. Future updates to the AMP will need to account for the subsequent replacement of new assets constructed as part of the FY 2026-27 Ten-Year CIP, particularly where those assets differ in scope or configuration of the assets they replaced (e.g. a replacement project resulting in assets with longer service lives, higher capacity, or different maintenance requirements that will affect future funding projections).

– BLANK –