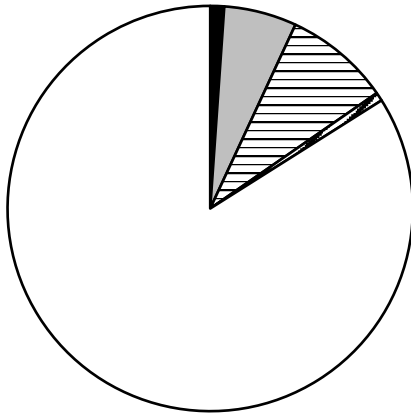


# WATER POLLUTION CONTROL

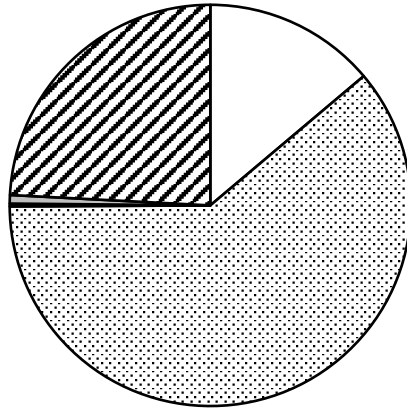
## 2023-2027 Capital Improvement Program

**2022-2023 Proposed Source of Funds**



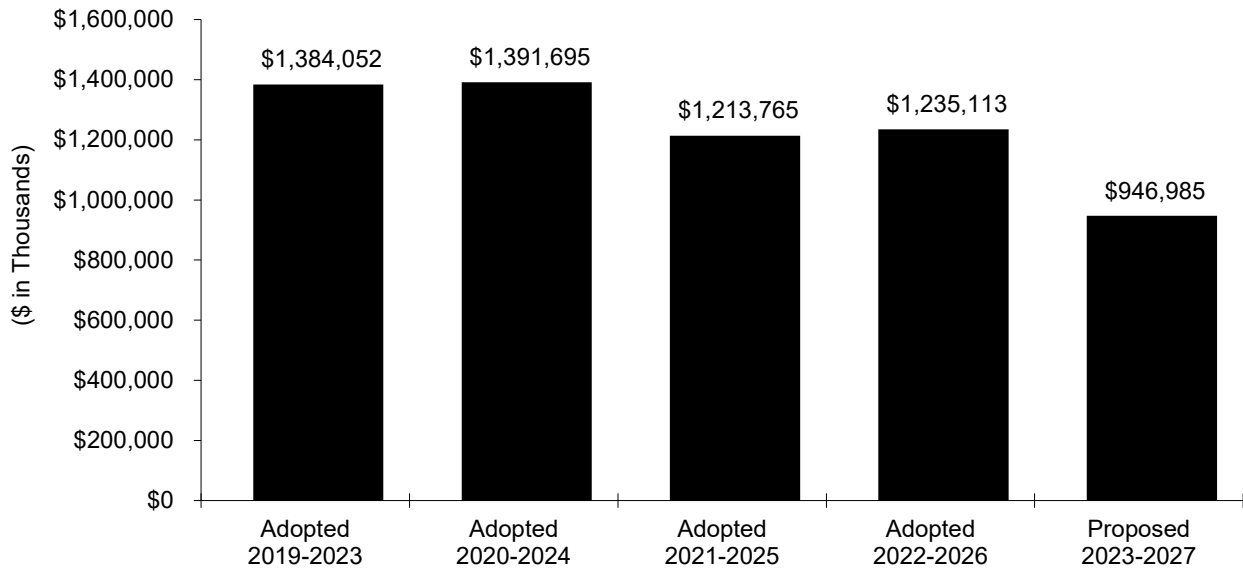
- Beginning Fund Balance
- Local Agencies
- ▨ Transfers
- ▣ Interest and Miscellaneous
- Financing Proceeds

**2022-2023 Proposed Use of Funds**



- Construction
- ▣ Non-Construction
- Allocations and Transfers
- ▣ Reserves
- ▣ Ending Fund Balance

**CIP History**

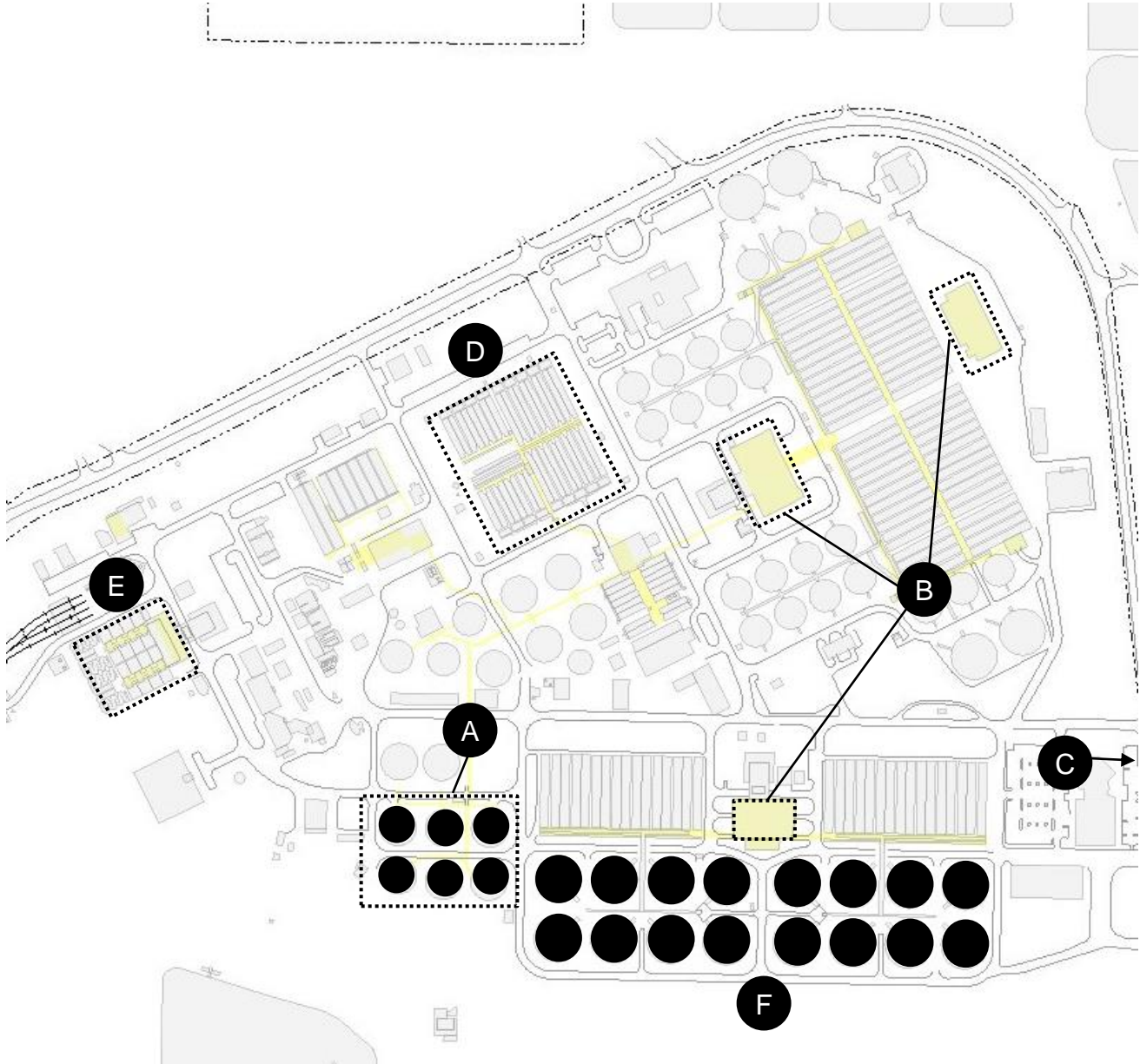


# WATER POLLUTION CONTROL

## 2023-2027 Capital Improvement Program\*

### Major Projects

- A) Additional Digester Upgrades
- B) Aeration Tanks and Blower Rehabilitation
- C) Digested Sludge Dewatering Facility
- D) East Primary Rehabilitation, Seismic Retrofit, and Odor Control
- E) Filter Rehabilitation
- F) Nitrification Clarifier Rehabilitation



\* Includes only major projects to be in construction at the Plant. Please see the Source & Use for a full listing.

# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### INTRODUCTION

The San José-Santa Clara Regional Wastewater Facility (RWF) is a regional wastewater treatment facility serving eight South Bay cities and four special districts including: San José, Santa Clara, Milpitas, Cupertino Sanitary District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno, and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated). The RWF is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José’s Environmental Services Department (ESD). ESD is also responsible for planning, designing, and constructing capital improvements at the RWF, including water reuse facilities. On March 26, 2013, the City Council approved to change the name of the San José-Santa Clara Water Pollution Control Plant to the RWF for use in public communications and outreach.

<b>RWF INFRASTRUCTURE</b>	
ACRES OF LAND	2,684
AVERAGE DRY WEATHER INFLUENT CAPACITY (MILLIONS OF GALLONS PER DAY)	167
AVERAGE DRY WEATHER INFLUENT FLOW (MILLIONS OF GALLONS PER DAY)	102
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	43,100
AVERAGE MEGAWATTS PRODUCED	5.6

The 2023-2027 Proposed Capital Improvement Program (CIP) provides funding of \$947.0 million, of which \$537.0 million is allocated in 2022-2023. The five-year CIP is developed by City staff, reviewed by the Treatment Plant Advisory Committee (TPAC), and approved by the San José City Council. The budgeted costs are allocated to each agency based on its contracted-for capacity in the RWF. Each agency is responsible for its allocated share of RWF costs, as well as the operation, maintenance, and capital costs of its own sewage collection system; debt service on bonds issued by the agency for sewer purposes; and any other sewer service-related costs. Each agency is also responsible for establishing and collecting its respective sewer service and use charges, connection fees, or other charges for sewer service.

This program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcomes: *Reliable Utility Infrastructure* and *Healthy Streams, Rivers, Marsh, and Bay*.

#### PROGRAM PRIORITIES AND OBJECTIVES

The 2023-2027 Proposed CIP is consistent with the goals and policies outlined in the City’s Envision San José 2040 General Plan. These include maintaining adequate operational capacity for wastewater treatment to accommodate the City’s economic and population growth; adopting and implementing new technologies for wastewater to achieve greater safety, energy efficiency, and environmental benefit; and maintaining and operating the RWF in compliance with all applicable local, state, and federal regulatory requirements.

# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### PROGRAM PRIORITIES AND OBJECTIVES

The development of the Proposed CIP is guided by the Plant Master Plan (PMP), a 30-year planning-level document focused on long-term rehabilitation and modernization of the RWF. On April 19, 2011, the City Council approved a preferred alternative for the Draft PMP and directed staff to proceed with a program-level environmental review of the preferred alternative. In November 2013, the City Council approved the PMP and certified the final Environmental Impact Report. In December 2013, Santa Clara's City Council took similar actions.



*San José-Santa Clara Regional Wastewater Facility*

The PMP recommends more than 114 capital improvement projects to be implemented over a 30-year planning period at an estimated investment level of approximately \$2 billion. The PMP assumed an implementation schedule of 2010 through 2040.

On September 24, 2013, the City Council approved a multi-year master services agreement with MWH Americas, Inc. for program management consultant services to assist with managing and implementing the RWF CIP<sup>1</sup>. By February 2014, the consultant program management team, along with City staff, completed a project validation process that included a review and prioritization of PMP projects, along with gap projects identified through discussions with Operations and Maintenance staff. The projects included with this Proposed CIP are based on the outcome of that project validation and the completion of various programmatic studies. On October 17, 2017, the City Council approved an amendment to extend the consultant program management services through 2023 to align with the implementation of the ten-year capital program.

Program priorities for the near term include: managing long-term financing (for San José only); continuing to focus on program and project delivery; and actively managing project risks and variables to inform timing and amount of major encumbrances.

**Program Funding:** In early 2014, staff began working with representatives from the City of Santa Clara and the tributary agencies to develop a ten-year funding strategy for the CIP. On May 14, 2015, TPAC recommended approval of the Ten-Year Funding Strategy and the City Council approved it on June 2, 2015. An update on the Ten-Year Funding Strategy was recommended for approval by TPAC on December 10, 2015 and approved by the City Council on January 12, 2016.

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<sup>1</sup> Effective January 1, 2017, MWH Americas, Inc. was acquired and merged with Stantec Consulting Services, Inc.

# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### PROGRAM PRIORITIES AND OBJECTIVES

In August 2017, staff provided an update on Clean Water State Revolving Fund (SRF) funding to the City Council, which included news that the State Water Resources Control Board (SWRCB) would not be funding the Digester and Cogeneration projects. Staff continues to monitor the issue and evaluate further SRF opportunities as appropriate. However, based on the City's experience with this program, unless significant changes are made to the funding level, program priorities, program resources, and loan agreement terms, SRF loans do not appear to be a potential source of funding for the RWF CIP.

#### *Headworks Construction*



In October 2017, the City Council approved the establishment of a \$300 million interim financing facility (Wastewater Revenue Notes) to finance San José's portion of the capital costs. In September 2020, the City Council approved a three-year extension to this financing facility. As the CIP progresses, the City will periodically pay off the interim financing facility with long-term bonds (Bond Proceeds). This strategy provides funding for the CIP at the lowest possible cost with the least amount of risk. The 2023-2027 Proposed CIP assumes the issuance of long-term bonds in 2022-2023. The establishment of a second interim financing facility in 2024-2025 is expected though not budgeted at this time, to provide as-needed capacity for potential future increases to the number, scope, and cost of projects at the RWF. In addition, the City continues to build the operating reserves needed for issuing long-term bonds.

***Program/Project Delivery and Implementation:*** Successful delivery of this large, multi-disciplinary CIP requires an integrated team of City staff, outside consultants, and contractors. The program is being delivered using a mix of City staff from the Environmental Services Department, the Public Works Department, the Planning, Building and Code Enforcement Department, the Finance Department, and the City Attorney's Office, as well as program management consultant staff and various other consultant firms.

# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### PROGRAM PRIORITIES AND OBJECTIVES

With roughly two dozen large projects moving through the feasibility/development, design, and construction phases, the program continues to draw from the professional consultant and/or contractor community for program management, project management, subject-matter technical expertise, engineering design, and construction management services. To address the significant large-scale construction activity, City staff has implemented a construction management strategy that has been incorporated into the 2023-2027 Proposed CIP. This includes maintaining a construction management budget to provide the necessary support from Public Works Department and third-party construction management and controls consultants required for projects of this magnitude and complexity.

***Program/Project Delivery Variables:*** The program team continues to develop and refine project schedules and budgets and implement regular reporting and centralized document management systems for consistent and efficient program and project delivery. The program team continues to work on developing standardized project delivery tools, design standards and specifications, control system and integration strategies, startup, commissioning, and training.

***Existing Filtration Structure***



# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### PROGRAM PRIORITIES AND OBJECTIVES

On the project delivery front, it is important to recognize that several projects in the Proposed CIP are in the feasibility/development or design phases. Staff will continue to develop and refine project scope, schedules, and budgets as the projects progress through scoping, preliminary engineering, detailed design, and bid award. To the extent possible, staff will continue to monitor and implement mitigation measures to minimize impacts to project delivery schedule and cost caused by various factors such as changes in project delivery staffing resources, long lead time items, external permit reviews and approvals, and construction bidding climate.

CIP projects, particularly those in construction, continue to be impacted by COVID-19. At the RWF, CIP staff have been working with contractors to continue construction safely. While many projects have experienced specific and quantifiable effects due to the pandemic, staff are continuing to work diligently with internal stakeholders and external contractors on a project-by-project basis to understand the full impact of COVID-19, and to mitigate its effects in order to ensure efficient project delivery at the RWF.

#### SOURCES OF FUNDING

Revenues for the 2023-2027 Proposed CIP are derived from several sources: transfers from the Sewer Service and Use Charge (SSUC) Fund, contributions from the City of Santa Clara and other tributary agencies, interest earnings, Calpine Metcalf Energy Center Facilities repayments, and debt-financing proceeds. Occasional transfers from the Sewage Treatment Plant Connection Fee Fund are programmed as needed per the receipt of connection fee revenue in that fund.

The SSUC Fund derives its revenues from fees imposed on San José users of the residential, commercial, and industrial sanitary sewer system. Transfers from this fund to the RWF CIP over the five years total \$309.7 million, which represents a \$66.2 million (27.2%) increase as compared to the 2022-2026 Adopted CIP.

Contributions from the City of Santa Clara and other agencies are determined according to agreements with the participating agencies, the amount and characteristics of flows from each agency's connections to the RWF, and the adopted budget for that fiscal year. In this Proposed CIP, contributions from the City of Santa Clara and other agencies total \$165.1 million, which represents a \$101.3 million (38%) decrease compared to the 2022-2026 Adopted CIP.

# Water Pollution Control

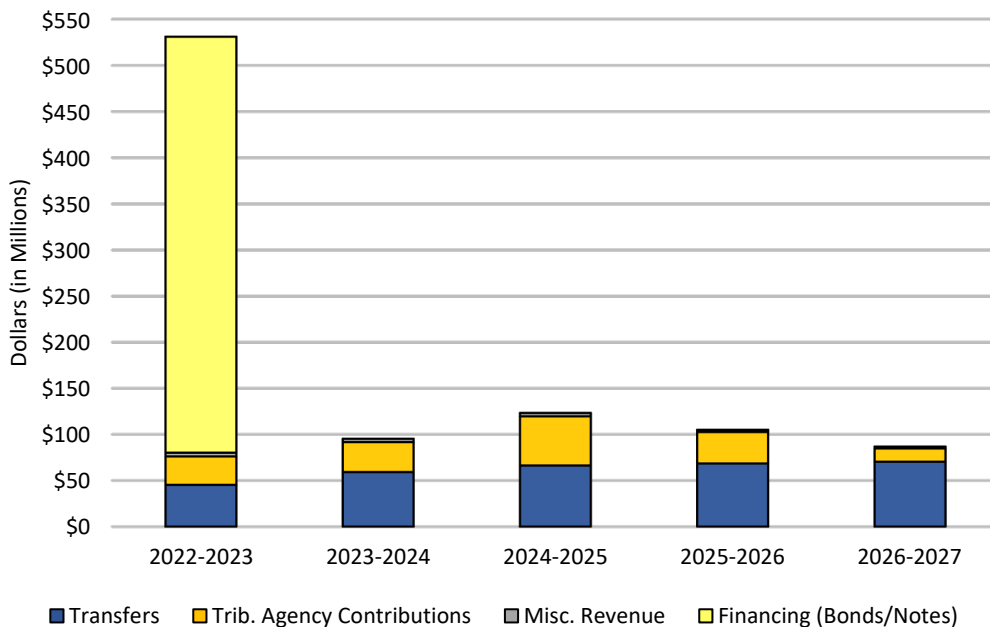
## 2023-2027 Proposed Capital Improvement Program

### OVERVIEW

#### SOURCES OF FUNDING

To accommodate San José’s portion of the project costs for the RWF, Financing Proceeds (Wastewater Revenue Notes and Bond Proceeds) are assumed to cover costs of the RWF improvements in the Proposed CIP. The establishment of an interim financing program, in the form of Wastewater Revenue Notes, was approved in October 2017 and renewed in September 2020 to provide up to \$300 million in interim financing capacity. The Notes provide periodic, short-term, flexible funding to meet the cash flow needs of the RWF improvement project. Generally, the notes are repaid within a three-year period and offer lower interest costs than fixed rate bonds. In 2022-2023, bonds will be issued in the amount of \$450.9 million to both repay the Wastewater Revenue Notes issued since 2017-2018 and to cover other CIP project and financing costs within that fiscal year. Associated debt service for the Wastewater Revenue Notes and debt service for the bonds total \$444.7 million in this CIP, which includes \$315.3 million in 2022-2023 (\$300.0 million for the repayment of Wastewater Revenue Notes and an additional \$15.3 million for debt service), \$29.2 million in 2023-2024, \$31.3 million in 2024-2025, \$33.5 million in 2025-2026 and \$35.4 million in 2026-2027. The estimated size of the debt financings and the related debt service are scheduled to cover external third-party capital costs programmed in the 2023-2027 Proposed CIP while avoiding large rate increases that would be required to fund the PMP in a “pay-as-you-go” scenario. City of San José staff costs will be cash-funded and not included in either the Wastewater Revenue Notes program or long-term debt financing. Additional debt financing, in the form of notes and bonds, will likely be needed to fund project costs beyond the Proposed CIP period.

#### Summary of Revenues





# Water Pollution Control

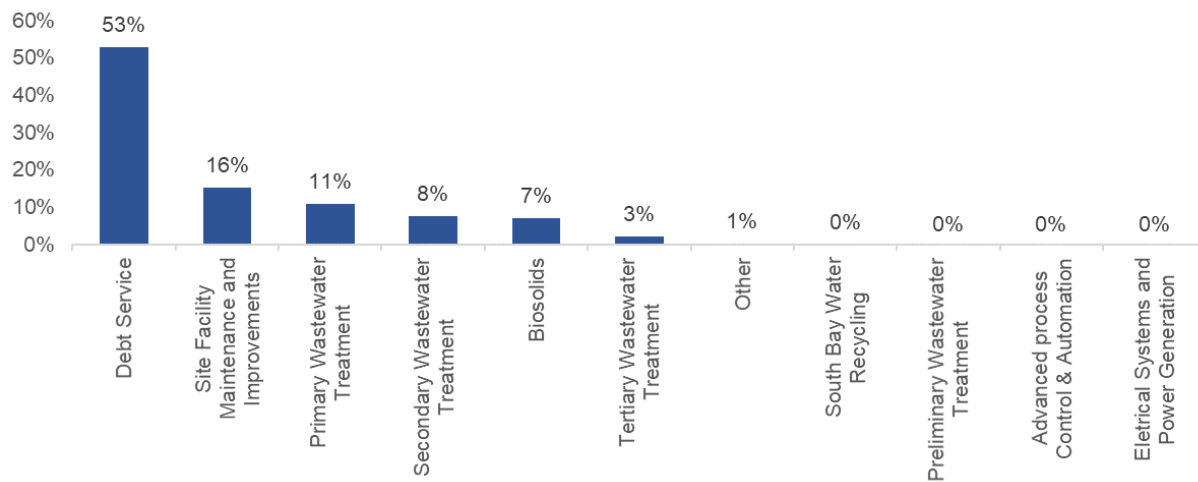
## 2023-2027 Proposed Capital Improvement Program

### OVERVIEW

#### PROGRAM HIGHLIGHTS

The Water Pollution Control Capital Program’s expenditures are organized to show the use of funds in several categories, as summarized in the table below. For further information on the program’s individual projects, please refer to the Detail Pages.

**2023-2027 Water Pollution Control  
Capital Program Expenditures  
\$932.5 million  
(excludes Ending Fund Balance)**



# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### OVERVIEW

#### MAJOR CHANGES FROM THE 2022-2026 ADOPTED CIP

The overall size of the Water Pollution Control CIP has decreased by \$288.1 million from \$1.2 billion in the 2022-2026 Adopted CIP to \$947.0 million in the 2023-2027 Proposed CIP. The changes to the size of the CIP are attributable to projects being completed and are therefore no longer funded in the future, or to projects that have been otherwise shifted out of the five-year planning horizon.

#### Major Changes to Project Budgets

The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project Name	Incr/(Decr)
Plantwide Security Systems Upgrade	\$7.2 million
Flood Protection	\$4.5 million
Nitrification Clarifiers Rehabilitation	(\$9.7 million)
Final Effluent Pump Station & Stormwater Channel Improvements	(\$29.5 million)
Yard Piping and Road Improvements	(\$39.8 million)
Aeration Tanks & Blower Improvements	(\$52.7 million)

#### OPERATING BUDGET IMPACT

The Digested Sludge Dewatering Facility Project is expected to introduce significant new operating costs to the Operating Budget. The estimated operating and maintenance impacts are due to chemical, labor, maintenance consumables (e.g., parts, oil), electrical, and hauling & tipping costs. Until the lagoons and drying beds can be fully retired, it is anticipated there will be several years with the new dewatering facility and existing lagoons and drying beds in concurrent operation. Detail on the impacts beginning in 2023-2024 through 2026-2027 is provided in Attachment A at the conclusion of the Overview and in the Project Detail Pages.

Net operating cost impacts will continue to be evaluated and updated based on final design and operation configurations and may result in different costs when the actual budget for the year in question is developed.

# Water Pollution Control

## 2023-2027 Proposed Capital Improvement Program

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### Attachment A - Operating Budget Impact

	<u>2021-2022</u>	<u>2022-2023</u>	<u>2023-2024</u>	<u>2024-2025</u>
<b><u>Water Pollution Capital Program</u></b>				
Digested Sludge Dewatering Facility				\$5,147,000
Digester and Thickener Facilities Upgrade			\$2,285,000	\$2,370,000
<b>Total Water Pollution Capital Program</b>			<b>\$2,285,000</b>	<b>\$7,517,000</b>

Water Pollution Control  
**2023-2027 Proposed Capital Improvement Program**  
Source of Funds (Combined)

	Estimated						
	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	5-Year Total*
<b>San José-Santa Clara Treatment Plant Capital Fund (512)</b>							
<b>Beginning Balance</b>	-60,479,016	2,035,987	129,520,987	100,903,987	38,682,987	5,057,987	2,035,987
<b>Reserve for Encumbrance</b>	241,259,780						
<b>Transfers and Reimbursements</b>							
Transfer for Plant CIP Debt Service from Sewer Service and Use Charge Fund (541)	3,422,000	15,338,000	29,159,000	31,285,000	33,515,000	35,401,000	144,698,000
Transfer for Capital Projects from Sewer Service and Use Charge Fund (541)	30,000,000	30,000,000	30,000,000	35,000,000	35,000,000	35,000,000	165,000,000
<b>TOTAL Transfers and Reimbursements</b>	<b>33,422,000</b>	<b>45,338,000</b>	<b>59,159,000</b>	<b>66,285,000</b>	<b>68,515,000</b>	<b>70,401,000</b>	<b>309,698,000</b>
<b>Revenue from Use of Money and Property</b>							
Interest Income	4,899,000	3,631,000	3,163,000	3,258,000	1,567,000	1,510,000	13,129,000
<b>TOTAL Revenue from Use of Money and Property</b>	<b>4,899,000</b>	<b>3,631,000</b>	<b>3,163,000</b>	<b>3,258,000</b>	<b>1,567,000</b>	<b>1,510,000</b>	<b>13,129,000</b>
<b>Revenue from Local Agencies</b>							
WPCP Projects and Equipment Replacement	67,335,000	30,770,000	32,512,000	53,326,000	34,082,000	14,430,000	165,120,000
<b>TOTAL Revenue from Local Agencies</b>	<b>67,335,000</b>	<b>30,770,000</b>	<b>32,512,000</b>	<b>53,326,000</b>	<b>34,082,000</b>	<b>14,430,000</b>	<b>165,120,000</b>
<b>Other Revenue</b>							
Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
<b>TOTAL Other Revenue</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>389,000</b>	<b>1,945,000</b>
<b>Financing Proceeds</b>							

\* The 2023-2024 through 2026-2027 Beginning Balances are excluded from in FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control  
**2023-2027 Proposed Capital Improvement Program**  
Source of Funds (Combined)

	<b>Estimated</b>						
	<b>2021-2022</b>	<b>2022-2023</b>	<b>2023-2024</b>	<b>2024-2025</b>	<b>2025-2026</b>	<b>2026-2027</b>	<b>5-Year Total*</b>
Wastewater Revenue Notes	238,451,000						
Bond Proceeds		450,865,000					450,865,000
<b>TOTAL Financing Proceeds</b>	<b>238,451,000</b>	<b>450,865,000</b>					<b>450,865,000</b>
<b>Total San José-Santa Clara Treatment Plant Capital Fund (512)</b>	<b>525,276,764</b>	<b>533,028,987</b>	<b>224,743,987</b>	<b>224,161,987</b>	<b>143,235,987</b>	<b>91,787,987</b>	<b>942,792,987</b>
<b>South Bay Water Recycling Capital Fund (571)</b>							
<b>Beginning Balance</b>	3,968,914	3,911,914	276,914	307,914	338,914	369,914	3,911,914
<b>Revenue from Use of Money and Property</b>							
Interest Income	68,000	56,000	56,000	56,000	56,000	56,000	280,000
<b>TOTAL Revenue from Use of Money and Property</b>	<b>68,000</b>	<b>56,000</b>	<b>56,000</b>	<b>56,000</b>	<b>56,000</b>	<b>56,000</b>	<b>280,000</b>
<b>Total South Bay Water Recycling Capital Fund (571)</b>	<b>4,036,914</b>	<b>3,967,914</b>	<b>332,914</b>	<b>363,914</b>	<b>394,914</b>	<b>425,914</b>	<b>4,191,914</b>
<b>TOTAL SOURCES</b>	<b>529,313,678</b>	<b>536,996,901</b>	<b>225,076,901</b>	<b>224,525,901</b>	<b>143,630,901</b>	<b>92,213,901</b>	<b>946,984,901</b>

\* The 2023-2024 through 2026-2027 Beginning Balances are excluded from in FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

## Water Pollution Control

### **2023-2027 Proposed Capital Improvement Program Use of Funds (Combined)**

	Estimated 2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	5-Year Total*
<b><u>Water Pollution Control</u></b>							
Headworks Improvements	10,076,772						
New Headworks	83,876,561						
<b>Preliminary Wastewater Treatment</b>	<b>93,953,333</b>						
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,000,000		10,885,000	94,530,000	686,000	684,000	106,785,000
<b>Primary Wastewater Treatment</b>	<b>1,000,000</b>		<b>10,885,000</b>	<b>94,530,000</b>	<b>686,000</b>	<b>684,000</b>	<b>106,785,000</b>
Aeration Tanks and Blower Rehabilitation	20,268,667	1,003,000	1,825,000	388,000	15,397,000	591,000	19,204,000
Nitrification Clarifier Rehabilitation	29,126,047	4,450,000	22,867,000	1,183,000	1,217,000	790,000	30,507,000
Secondary Clarifier Rehabilitation				565,000	2,833,000	22,379,000	25,777,000
<b>Secondary Wastewater Treatment</b>	<b>49,394,714</b>	<b>5,453,000</b>	<b>24,692,000</b>	<b>2,136,000</b>	<b>19,447,000</b>	<b>23,760,000</b>	<b>75,488,000</b>
Filter Rehabilitation	49,259,859	1,314,000	1,089,000				2,403,000
Final Effluent Pump Station & Stormwater Channel Improvements	2,119,237	1,887,000	12,616,000	449,000			14,952,000
New Disinfection Facilities					952,000	6,179,000	7,131,000
Outfall Channel and Instrumentation Improvements	7,236,585	548,000					548,000
<b>Tertiary Wastewater Treatment</b>	<b>58,615,681</b>	<b>3,749,000</b>	<b>13,705,000</b>	<b>449,000</b>	<b>952,000</b>	<b>6,179,000</b>	<b>25,034,000</b>
Additional Digester Upgrades	1,191,000		5,288,000	1,298,000	54,319,000	1,655,000	62,560,000
Digested Sludge Dewatering Facility	151,248,164	2,800,000	2,272,000	2,222,000			7,294,000
Digester and Thickener Facilities Upgrade	37,132,738						
<b>Biosolids</b>	<b>189,571,902</b>	<b>2,800,000</b>	<b>7,560,000</b>	<b>3,520,000</b>	<b>54,319,000</b>	<b>1,655,000</b>	<b>69,854,000</b>
Energy Generation Improvements	3,156,469						
Plant Electrical Reliability	5,537,917						

\* The 2022-2023 through 2025-2026 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

## Water Pollution Control

### **2023-2027 Proposed Capital Improvement Program Use of Funds (Combined)**

	<b>Estimated 2021-2022</b>	<b>2022-2023</b>	<b>2023-2024</b>	<b>2024-2025</b>	<b>2025-2026</b>	<b>2026-2027</b>	<b>5-Year Total*</b>
<b>Electrical Systems and Power Generation</b>	<b>8,694,386</b>						
Advanced Facility Control and Meter Replacement	14,188,251						
Treatment Plant Distributed Control System	3,183,409						
<b>Advanced Process Control &amp; Automation</b>	<b>17,371,661</b>						
Facility Wide Water Systems Improvements	5,554,641	45,501,000	1,260,000	1,257,000	509,000		48,527,000
Flood Protection	1,242,150	396,000	7,735,000	513,000			8,644,000
Plant Infrastructure Improvements	5,887,514		1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Plantwide Security Systems Upgrade	6,740,000		5,457,000	1,003,000	736,000		7,196,000
Storm Drain System Improvements	9,389,692	1,621,000	632,000				2,253,000
Support Building Improvements	20,487,889	4,983,000	1,496,000	699,000	667,000	686,000	8,531,000
Tunnel Rehabilitation				2,302,000	467,000	530,000	3,299,000
Urgent and Unscheduled Treatment Plant Rehabilitation	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Various Infrastructure Decommissioning	469,000		2,590,000	18,470,000	691,000		21,751,000
Yard Piping and Road Improvements	18,184,941	8,362,000	2,509,000	12,410,000	11,492,000	475,000	35,248,000
<b>Site Facility Maintenance and Improvements</b>	<b>69,455,827</b>	<b>62,363,000</b>	<b>24,179,000</b>	<b>39,154,000</b>	<b>17,062,000</b>	<b>4,191,000</b>	<b>146,949,000</b>
Hydraulic Capacity Engineering	125,000	25,000	25,000	25,000	25,000	25,000	125,000
<b>South Bay Water Recycling</b>	<b>125,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>125,000</b>
<b>Water Pollution Control - Construction</b>	<b>488,182,503</b>	<b>74,390,000</b>	<b>81,046,000</b>	<b>139,814,000</b>	<b>92,491,000</b>	<b>36,494,000</b>	<b>424,235,000</b>
Debt Service Repayment for Plant Capital Improvement Projects	5,422,000	315,338,000	29,159,000	31,285,000	33,515,000	35,401,000	444,698,000
Owner Controlled Insurance Program	8,189,000		1,020,000	764,000			1,784,000

\* The 2022-2023 through 2025-2026 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

## Water Pollution Control

### **2023-2027 Proposed Capital Improvement Program Use of Funds (Combined)**

	<b>Estimated 2021-2022</b>	<b>2022-2023</b>	<b>2023-2024</b>	<b>2024-2025</b>	<b>2025-2026</b>	<b>2026-2027</b>	<b>5-Year Total*</b>
Master Plan Updates	106,904						
Preliminary Engineering - Water Pollution Control	4,170,188	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000	6,000,000
Program Management - Water Pollution Control	15,832,181	10,579,000	10,317,000	10,459,000	9,707,000	4,115,000	45,177,000
<b>General Non-Construction - Water Pollution Control</b>	<b>33,720,273</b>	<b>327,917,000</b>	<b>41,496,000</b>	<b>43,508,000</b>	<b>44,222,000</b>	<b>40,516,000</b>	<b>497,659,000</b>
<b>Water Pollution Control - Non Construction</b>	<b>33,720,273</b>	<b>327,917,000</b>	<b>41,496,000</b>	<b>43,508,000</b>	<b>44,222,000</b>	<b>40,516,000</b>	<b>497,659,000</b>
Public Art Allocation	108,000						
<b>Public Art Projects</b>	<b>108,000</b>						
Capital Program and Public Works Department Support Service Costs	1,217,000	1,086,000	1,183,000	2,042,000	1,350,000	533,000	6,194,000
<b>Allocations</b>	<b>1,217,000</b>	<b>1,086,000</b>	<b>1,183,000</b>	<b>2,042,000</b>	<b>1,350,000</b>	<b>533,000</b>	<b>6,194,000</b>
City Hall Debt Service Fund	138,000	140,000	140,000	140,000	140,000	140,000	700,000
<b>Transfers to Special Funds</b>	<b>138,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>700,000</b>
Transfer to the General Fund: Measure T Bond Reimbursement							
<b>Transfers to the General Fund</b>							
<b>Transfers Expense</b>	<b>138,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>140,000</b>	<b>700,000</b>
Hydraulic Capacity Enhancements Reserve		3,666,000					3,666,000
<b>Expense Reserves - Non Construction</b>		<b>3,666,000</b>					<b>3,666,000</b>
<b>Total Expenditures</b>	<b>523,365,777</b>	<b>407,199,000</b>	<b>123,865,000</b>	<b>185,504,000</b>	<b>138,203,000</b>	<b>77,683,000</b>	<b>932,454,000</b>
Ending Fund Balance	5,947,901	129,797,901	101,211,901	39,021,901	5,427,901	14,530,901	14,530,901
<b>TOTAL</b>	<b>529,313,678</b>	<b>536,996,901</b>	<b>225,076,901</b>	<b>224,525,901</b>	<b>143,630,901</b>	<b>92,213,901</b>	<b>946,984,901</b>

\* The 2022-2023 through 2025-2026 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.



**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Additional Digester Upgrades**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2021
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2028
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	3rd Qtr. 2022
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	3rd Qtr. 2028
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$64,475,000
<b>Appropriation</b>	A426D	<b>FY Initiated</b>	2021-2022

**Description** This project will rehabilitate up to six existing anaerobic digesters, including installation of new covers and mixers, upgrades to the existing sludge distribution piping, and upgrades to the digester heat supply system. The project may also include the installation of batch tanks to produce Class A biosolids (if required by future regulations).

**Justification** This project will complete the second phase of work for the Digester and Thickener Facilities Upgrade to ensure safe and reliable operation of the digestion facilities.

**Notes** This project corresponds to Plant Master Plan Project Nos. 50, 51, and 53, and Validation Project PS-02. Prior to 2018-2022, this project was part of "Digester and Thickener Facilities Upgrade".

**Major Cost Changes**

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development		1,191		389				389		1,580
Design				4,816	1,279	291		6,386		6,386
Bid & Award				83	19	15		117		117
Construction						53,648	1,655	55,303	450	55,753
Post Construction						365		365	274	639
<b>Total</b>		<b>1,191</b>		<b>5,288</b>	<b>1,298</b>	<b>54,319</b>	<b>1,655</b>	<b>62,560</b>	<b>724</b>	<b>64,475</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)		1,191		5,288	1,298	54,319	1,655	62,560	724	64,475
<b>Total</b>		<b>1,191</b>		<b>5,288</b>	<b>1,298</b>	<b>54,319</b>	<b>1,655</b>	<b>62,560</b>	<b>724</b>	<b>64,475</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Aeration Tanks and Blower Rehabilitation**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	1st Qtr. 2015
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	3rd Qtr. 2025
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	2nd Qtr. 2015
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	4th Qtr. 2026
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$114,880,000
<b>Appropriation</b>	A7677	<b>FY Initiated</b>	2014-2015

**Description** This project rehabilitates the secondary and nitrification aeration tanks including structural, mechanical, electrical, and instrumentation upgrades. It also replaces the remaining existing coarse bubble diffusers with fine bubble diffusers; installs partition walls and reconfigures air piping to optimize process treatment capabilities; and repairs concrete and applies coatings. This is the first phase of a multi-phased project. Based on performance of the tanks and updated flows and loads data, there is potential for a second and third phase. This Phase I work will help inform the scope and budget of the potential future budget phase(s).  
 This project also installs Variable Frequency Drives (VFDs), new motors, new Motor Control Centers (MCC), and new controls for the electric driven blowers in Building 40 and Tertiary Blower Building; decommissions the engine driven blowers in the Secondary Blower Building; and replaces the S11 switchgear.

**Justification** The secondary and nitrification aeration tanks were constructed in phases between the 1960s and 1980s. Due to their age and the aggressive and corrosive environment they operate in, extensive rehabilitation is required. Conversion to fine bubble diffusers will increase the oxygen transfer efficiency and decrease energy requirements. Installing VFDs will minimize the impact of starting current on the blowers when the Plant is run on emergency power. Lastly, the S11 switchgear and MCCs are outdated and need to be upgraded to be compatible with the new VFDs.

**Notes** This project corresponds to Plant Master Plan Project Nos. 20, 24, and 85 and Validation Project PLS-01.

**Major Cost Changes** 2016-2020 CIP - Increase of \$4.4 million due to escalation of construction costs.  
 2018-2022 CIP - Increase of \$4.5 million due to a revised scope and cost estimate.  
 2019-2023 CIP - Increase of \$26.5 million due to an updated construction cost estimate.  
 2020-2024 CIP - Decrease of \$16.9 million due to updated construction estimate and lower than expected construction bids.  
 2023-2027 CIP - Decrease of \$52.7 million due to revised scope and cost estimate to include only Phase I of this project.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	5,707	2,553	1,003	153		100		1,256		9,516
Design	4,329			1,622	234			1,856		6,185
Bid & Award	273			50	154	95		299		572
Construction	28,192	17,715				15,182	450	15,632		61,539
Post Construction						20	141	161		161
<b>Total</b>	<b>38,501</b>	<b>20,269</b>	<b>1,003</b>	<b>1,825</b>	<b>388</b>	<b>15,397</b>	<b>591</b>	<b>19,204</b>		<b>77,973</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	38,501	20,269	1,003	1,825	388	15,397	591	19,204		77,973
<b>Total</b>	<b>38,501</b>	<b>20,269</b>	<b>1,003</b>	<b>1,825</b>	<b>388</b>	<b>15,397</b>	<b>591</b>	<b>19,204</b>		<b>77,973</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Digested Sludge Dewatering Facility**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2012
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2013
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	3rd Qtr. 2014
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2025
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$1,000,000
<b>Appropriation</b>	A7452	<b>FY Initiated</b>	2012-2013

**Description** This project will construct a new mechanical dewatering facility and support systems to replace the existing sludge storage lagoons and open air solar drying beds. All new mechanical dewatering units, feed tank, storage, conveyance, and chemical dosing facilities will be housed in an odor-controlled building.

**Justification** This project responds to a recommendation in the adopted Plant Master Plan to consolidate the Plant's operational area by reducing the biosolids process footprint. It also provides greater flexibility in biosolids disposal options in anticipation of the potential Newby Island landfill closure in 2025, responds to stricter regulations for landfilling and alternative daily cover, and addresses odor, noise, and aesthetics concerns from the operations of the lagoons and sludge drying beds.

**Notes** This project corresponds to Plant Master Plan Project Nos. 44, 54, 57-60 and Validation Project PS-03. The estimated operating and maintenance impacts are due to chemical, labor, maintenance consumables (e.g. parts, oil), electrical, and hauling & tipping costs. Until the lagoons and drying beds can be fully retired, it is anticipated there will be several years with the new dewatering facility and existing lagoons and drying beds in concurrent operation.

**Major Cost Changes** 2014-2018 CIP - Increase of \$325.0 million due to accelerated project start and compressed implementation schedule. 2015-2019 CIP - Decrease of \$256.8 million due to creation of separate biosolids projects through project validation. 2016-2020 CIP - Increase of \$1.6 million due to escalation of construction costs. 2017-2021 CIP - Increase of \$28.1 million due to increased scope and revised cost estimate. 2019-2023 CIP - Increase of \$18.3 million due to an updated construction cost estimate. 2020-2024 CIP - Increase of \$11.8 million due to an increase in scope and updated construction cost estimate. 2021-2025 CIP - Increase of \$26.4 million due to an updated scope and construction cost estimate. 2022-2026 CIP - Increase of \$13.0 million due to an updated scope and construction cost estimate.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	5,446	0								5,446
Design	9,720	5,270								14,989
Bid & Award	1,196	385								1,582
Construction	30	145,593	2,800	2,272	1,832			6,904		152,527
Post Construction					390			390		390
<b>Total</b>	<b>16,391</b>	<b>151,248</b>	<b>2,800</b>	<b>2,272</b>	<b>2,222</b>			<b>7,294</b>		<b>174,934</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	16,391	151,248	2,800	2,272	2,222			7,294		174,934
<b>Total</b>	<b>16,391</b>	<b>151,248</b>	<b>2,800</b>	<b>2,272</b>	<b>2,222</b>			<b>7,294</b>		<b>174,934</b>

<b>Annual Operating Budget Impact (000s)</b>						
Operating				5,087	15,960	16,695
Maintenance				60	186	192
<b>Total</b>				<b>5,147</b>	<b>16,146</b>	<b>16,887</b>

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**East Primary Rehabilitation, Seismic Retrofit, and Odor Control**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2009
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	4th Qtr. 2012
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	4th Qtr. 2031
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$3,605,000
<b>Appropriation</b>	A7226	<b>FY Initiated</b>	2010-2011

**Description** This project rehabilitates the existing primary clarifiers, including the coating of concrete and replacement of clarifier mechanisms with corrosion resistant materials. It also includes structural retrofits to allow new covers to be installed over a portion or all of the primary treatment area to contain odors. A new odor extraction and treatment system will also be constructed.

**Justification** This project restores the mechanical and structural integrity of the aging clarifiers and provides odor control measures.

**Notes** This project corresponds to Plant Master Plan Project Nos. 9, 10, and 11 and Validation Project PLP-02.

**Major Cost Changes** 2012-2016 CIP - Increase of \$80.1 million; \$16.6 million due to increase of scope to incorporate master planning recommendations for seismic upgrades and odor control measures; \$63.5 million reflects the addition of the Beyond 5-Year expense not previously programmed.  
 2013-2017 CIP - Decrease of \$1.7 million due to revised cost estimate.  
 2015-2019 CIP - Increase of \$27.5 million due to revised project validation cost estimate.  
 2016-2020 CIP - Increase of \$3.6 million due to escalation of construction costs.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	56	1,000		1,361				1,361		2,417
Design	30			9,386	1,211			10,597		10,627
Bid & Award				138	70			208		208
Construction					92,582	686	684	93,952	4,603	98,555
Post Construction					667			667	500	1,167
<b>Total</b>	<b>86</b>	<b>1,000</b>		<b>10,885</b>	<b>94,530</b>	<b>686</b>	<b>684</b>	<b>106,785</b>	<b>5,103</b>	<b>112,974</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	86	1,000		10,885	94,530	686	684	106,785	5,103	112,974
<b>Total</b>	<b>86</b>	<b>1,000</b>		<b>10,885</b>	<b>94,530</b>	<b>686</b>	<b>684</b>	<b>106,785</b>	<b>5,103</b>	<b>112,974</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Facility Wide Water Systems Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2014
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	1st Qtr. 2022
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	1st Qtr. 2026
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$14,130,000
<b>Appropriation</b>	A7679	<b>FY Initiated</b>	2014-2015

**Description** This project rehabilitates, replaces, and/or extends the Plant's four water systems including piping, valves, pumps, controls, and other ancillary equipment. The scope of work will be based on hydraulic modeling and study of existing and future water demands at the Plant. The project may be constructed in phases based on the outcome of the study and priority of needs.

**Justification** The Plant's four water systems include potable water, groundwater, process/fire protection water, and recycled water. These were constructed over time with various Plant expansions and are in need of rehabilitation and upgrade due to age, condition, worker safety, plant reliability, and code compliance requirements. In addition, changes to water uses and demands have not all been addressed over time. An updated hydraulic model and assessment of current and future water demands will allow for the proper sizing of these systems to improve current and future performance and reduce risk of damage to pumping equipment.

**Notes** This project corresponds to Plant Master Plan Project No. 105 and Validation Project PF-06.

**Major Cost Changes** 2016-2020 CIP - Increase of \$1.6 million due to escalation of construction costs.  
 2018-2022 CIP - Increase of \$2.1 million due to revised project delivery cost estimate.  
 2022-2026 CIP - Increase of \$38.6 million due to revised scope and delivery cost estimate.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	3,108	14								3,122
Design	936	3,492	353					353		4,780
Bid & Award	6	30	127					127		163
Construction	285	2,019	45,021	1,260	1,257	446		47,984		50,288
Post Construction						63		63		63
<b>Total</b>	<b>4,334</b>	<b>5,555</b>	<b>45,501</b>	<b>1,260</b>	<b>1,257</b>	<b>509</b>		<b>48,527</b>		<b>58,416</b>

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	4,334	5,555	45,501	1,260	1,257	509		48,527		58,416
<b>Total</b>	<b>4,334</b>	<b>5,555</b>	<b>45,501</b>	<b>1,260</b>	<b>1,257</b>	<b>509</b>		<b>48,527</b>		<b>58,416</b>

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Filter Rehabilitation**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2011
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2013
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	3rd Qtr. 2014
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	3rd Qtr. 2024
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$3,506,000
<b>Appropriation</b>	A7227	<b>FY Initiated</b>	2010-2011

**Description** This project will replace filter media, valves, actuators, and electrical controls for all filters. It will also replace the existing surface wash system with a new air scour system, rehabilitate electrical switchgears and related motor control consoles, upgrade pipes, and make concrete repairs.

**Justification** The existing filter complex was constructed in the 1970s and requires significant refurbishment. The filter media, consisting of anthracite and sand, needs to be replaced and some of the mechanical and electrical components need to be upgraded. These critical improvements are needed to ensure continued regulatory compliance and operational reliability until a new filter complex is constructed.

**Notes** This project corresponds to Plant Master Plan Project Nos. 31, 32, and 33 as well as Validation Project PLF-01 and PLF-02.

**Major Cost Changes** 2014-2018 CIP - Decrease of \$2.7 million due to the removal of scope that is dependent on the evaluation of the demonstration project.  
 2015-2019 CIP - Increase of \$26.9 million due to revised scope and project validation cost estimate.  
 2016-2020 CIP - Increase of \$6.5 million due to revised cost estimate and escalation of construction costs.  
 2017-2021 CIP - Increase of \$2.5 million due to increased project scope.  
 2019-2023 CIP - Increase of \$6.9 million due to a revised construction cost estimate.  
 2020-2024 CIP - Increase of \$2.5 million due to a revised construction cost estimate.  
 2021-2025 CIP - Increase of \$12.6 million due to a revised construction estimate.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	2,047									2,047
Design	4,490									4,490
Bid & Award	592									592
Construction	1,147	49,039	1,314	856				2,170		52,356
Post Construction		221		233				233		454
<b>Total</b>	<b>8,276</b>	<b>49,260</b>	<b>1,314</b>	<b>1,089</b>				<b>2,403</b>		<b>59,939</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	8,276	49,260	1,314	1,089				2,403		59,939
<b>Total</b>	<b>8,276</b>	<b>49,260</b>	<b>1,314</b>	<b>1,089</b>				<b>2,403</b>		<b>59,939</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Final Effluent Pump Station & Stormwater Channel Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2019
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	3rd Qtr. 2025
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2025
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$47,358,000
<b>Appropriation</b>	A412H	<b>FY Initiated</b>	2019-2020

**Description** This project designs and constructs a new pump station to hydraulically push the Plant's final treated effluent to Coyote Creek. Additionally, it will improve the existing stormwater channel by rehabilitating the flapper gates and embankments. The scope of this project is a two-phase approach, with the first phase including work related to the stormwater channel. Phase II will be developed at a future time.

**Justification** The U.S. Army Corps of Engineers (USACE) will be constructing a new shoreline levee and closure structure near the Plant's outfall channel to protect the region against future sea level rise from the San Francisco Bay. The USACE project will install a tide gate closure structure with two new flapper gates just north of the Plant's outfall bridge, which will inhibit the Plant's treated wastewater discharge into Coyote Creek. A new final effluent pump station is required to lift the treated wastewater to the projected higher water surface elevations that will be held back by the new levee and tide gate in Coyote Creek.

**Notes** This project corresponds to Validation Project PLD-03.

**Major Cost Changes** 2023-2027 CIP - Decrease of \$29.5 million due to reduction in project scope to include only Phase I of this project.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	780	2,119	310					310		3,209
Design			1,577	156				1,733		1,733
Bid & Award				93				93		93
Construction				12,367	387			12,754		12,754
Post Construction					62			62		62
<b>Total</b>	<b>780</b>	<b>2,119</b>	<b>1,887</b>	<b>12,616</b>	<b>449</b>			<b>14,952</b>		<b>17,851</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	780	2,119	1,887	12,616	449			14,952		17,851
<b>Total</b>	<b>780</b>	<b>2,119</b>	<b>1,887</b>	<b>12,616</b>	<b>449</b>			<b>14,952</b>		<b>17,851</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Flood Protection**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2017
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2021
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2025
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$9,136,000
<b>Appropriation</b>	A402M	<b>FY Initiated</b>	2017-2018

**Description** This project provides 100-year flood protection for the Plant by constructing engineered earthen berms on the northern and eastern sides of the Plant.

**Justification** The Plant is a critical facility located within a Federal Emergency Management Agency (FEMA) defined flood zone and will experience significant flooding during a 100-year flood event. Until the South Bay Shoreline Project is completed by the US Army Corps of Engineers, the Plant remains at risk of flooding. This project will provide immediate protection from a 100-year flood event.

**Notes**

**Major Cost Changes** 2020-2024 CIP - Increase of \$2.3 million due to an updated construction cost estimate.  
 2021-2025 CIP - Decrease of \$9.7 million due to additional flood risk analysis indicating a need to adjust the scope of the project.  
 2022-2026 CIP - Increase of \$4.1 million due to updated scope and construction cost estimate.  
 2023-2027 CIP - Increase of \$4.5 million due to revised cost estimate.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	473	500								973
Design		742	317					317		1,059
Bid & Award			79	96				175		175
Construction				7,639	347			7,986		7,986
Post Construction					166			166		166
<b>Total</b>	<b>473</b>	<b>1,242</b>	<b>396</b>	<b>7,735</b>	<b>513</b>			<b>8,644</b>		<b>10,359</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	473	1,242	396	7,735	513			8,644		10,359
<b>Total</b>	<b>473</b>	<b>1,242</b>	<b>396</b>	<b>7,735</b>	<b>513</b>			<b>8,644</b>		<b>10,359</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										



**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Nitrification Clarifier Rehabilitation**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2009
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2024
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2027
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$26,701,000
<b>Appropriation</b>	A7074	<b>FY Initiated</b>	2009-2010

**Description** This project includes phased rehabilitation of the 16 nitrification clarifiers. Structural improvements may include concrete repairs and coating, new clarifier mechanisms and baffle installations, pipe support and meter vault replacements, and walkway improvements. Mechanical improvements may include piping, valve and actuator replacements, spray water system replacements, scum skimmer system upgrades, and return activated sludge piping lining. Electrical and instrumentation improvements may include motor control center replacements, new wiring, and other electrical equipment upgrades. Other incidental work may include grouting, painting, coating, and other surface treatments.

**Justification** The Plant's 16 nitrification clarifiers have been in service for 30 to 40 years depending on the year of construction. A condition assessment study, completed in 2011, recommended phased rehabilitation of the nitrification clarifiers. The improvements are needed to address structural, mechanical, electrical, and instrumentation deficiencies and will extend the useful life of the clarifier assets for an additional 30 years.

**Notes** This project corresponds to Plant Master Plan Project No. 21 and Validation Project PLS-02. This project is planned to be completed in multiple phases.

**Major Cost Changes** 2014-2018 CIP - Increase of \$13.0 million due to revised estimate.  
 2015-2019 CIP - Increase of \$22.0 million due to revised project validation cost estimate.  
 2016-2020 CIP - Decrease of \$8.5 million due to revised scope and cost estimate.  
 2017-2021 CIP - Decrease of \$1.6 million due to revised cost estimate.  
 2020-2024 CIP - Increase of \$46.4 million due to an increase in the amount of rehabilitation required and updated construction cost estimate.  
 2022-2026 CIP - Decrease of \$10.6 million due to revised scope and cost estimate.  
 2023-2027 CIP - Decrease of \$9.7 million due to lower than projected construction costs.

	<b>PRIOR</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR</b>	<b>BEYOND</b>	<b>PROJECT</b>
	<b>YEARS</b>	<b>EST</b>						<b>TOTAL</b>	<b>5 YEARS</b>	<b>TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	3,832	0								3,832
Design	2,276	1,695		137				137		4,108
Bid & Award	228	50		280				280		558
Construction	13,688	27,181	4,450	22,150	1,183	1,217	600	29,600		70,469
Post Construction	50	200		300			190	490		740
<b>Total</b>	<b>20,073</b>	<b>29,126</b>	<b>4,450</b>	<b>22,867</b>	<b>1,183</b>	<b>1,217</b>	<b>790</b>	<b>30,507</b>		<b>79,707</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	20,073	29,126	4,450	22,867	1,183	1,217	790	30,507		79,707
<b>Total</b>	<b>20,073</b>	<b>29,126</b>	<b>4,450</b>	<b>22,867</b>	<b>1,183</b>	<b>1,217</b>	<b>790</b>	<b>30,507</b>		<b>79,707</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Outfall Channel and Instrumentation Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2014
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2019
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	1st Qtr. 2023
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$8,120,000
<b>Appropriation</b>	A7678	<b>FY Initiated</b>	2014-2015

**Description** This project will repair erosion scour along the outfall channel weir structure, replace the weir board system, replace an electrical transformer, improve staff access around the sulfur dioxide building, install a new fiber optic system, and replace water quality instrumentation and flow meters.

**Justification** Discharging effluent has resulted in significant erosion of the outfall channel bed material adjacent to the weir structure, requiring replacement of the rock rip rap materials originally installed to protect the structure. In addition, several original materials, water quality instrumentation, and communications system used to ensure reliable outfall compliance have reached the end of their service life and need replacement.

**Notes** This project corresponds to Validation Project PLD-02.

**Major Cost Changes** 2016-2020 CIP - Increase of \$1.7 million due to escalation of construction costs.  
 2018-2022 CIP - Decrease of \$776,000 due to reduction of project scope.  
 2019-2023 CIP - Decrease of \$764,000 due to revised cost estimates.  
 2022-2026 CIP - Increase of \$1.5 million due to revised scope and cost estimate.

	<b>PRIOR</b>	<b>FY22</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR</b>	<b>BEYOND</b>	<b>PROJECT</b>
	<b>YEARS</b>	<b>EST</b>						<b>TOTAL</b>	<b>5 YEARS</b>	<b>TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	922	38								960
Design	1,224	22								1,246
Bid & Award	37	111								148
Construction	10	7,046	439					439		7,495
Post Construction		20	109					109		129
<b>Total</b>	<b>2,193</b>	<b>7,237</b>	<b>548</b>					<b>548</b>		<b>9,978</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	2,193	7,237	548					548		9,978
<b>Total</b>	<b>2,193</b>	<b>7,237</b>	<b>548</b>					<b>548</b>		<b>9,978</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Owner Controlled Insurance Program**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	2nd Qtr. 2017
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2023
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2024
<b>Council Districts</b>	N/A	<b>Initial Project Budget</b>	\$16,085,000
<b>Appropriation</b>	A401B	<b>FY Initiated</b>	2017-2018

**Description** This allocation provides funding for a centrally managed insurance and risk control program for construction projects in the Water Pollution Control CIP.

**Justification** This allocation is required to centrally manage insurance and risk control programs for construction projects in this capital program.

**Notes**

**Major Cost Changes** 2019-2023 CIP - Increase of \$4.9 million due to revised insurance cost estimates.  
 2022-2026 CIP - Decrease of \$2.3 million do to revised insurance cost estimates.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
General Administration	7,466	8,189		1,020	764			1,784		17,439
Construction	355									355
<b>Total</b>	<b>7,821</b>	<b>8,189</b>		<b>1,020</b>	<b>764</b>			<b>1,784</b>		<b>17,794</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	7,821	8,189		1,020	764			1,784		17,794
<b>Total</b>	<b>7,821</b>	<b>8,189</b>		<b>1,020</b>	<b>764</b>			<b>1,784</b>		<b>17,794</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Plantwide Security Systems Upgrade**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2021
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2022
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	1st Qtr. 2026
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$6,740,000
<b>Appropriation</b>	A426E	<b>FY Initiated</b>	2021-2022

**Description** This project will upgrade three critical security components at the Plant: 1. Construct a new main guard shack with monitoring, lighting, traffic circulation, and pavement improvements; 2. Install closed-circuit television cameras throughout the Plant and upgrade software, hardware, and equipment in the main server room; and 3. Install access card readers throughout the Plant and install new proximity card badging stations.

**Justification** The existing guard shack is antiquated and undersized. Existing entrance and exit lanes are inadequate for larger delivery trucks, which impedes traffic flow and causes delays. Installing wired and wireless cameras, along with an upgraded server room and new monitoring station will enhance security throughout the Plant, which is needed due to increased operational and construction activity. Installing access card readers will provide and improve security by replacing a mix of entry systems (e.g., cyberkey, traditional locks, card readers) with a single system.

**Notes**

**Major Cost Changes** 2023-2027 CIP - Increase of \$7.2 million due to revised scope and cost estimate.

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development		1,169								1,169
Design		585		795				795		1,380
Bid & Award		65		55	158			213		278
Construction		4,921		4,587	761	670		6,018		10,939
Post Construction				20	84	66		170		170
<b>Total</b>		<b>6,740</b>		<b>5,457</b>	<b>1,003</b>	<b>736</b>		<b>7,196</b>		<b>13,936</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)		6,740		5,457	1,003	736		7,196		13,936
<b>Total</b>		<b>6,740</b>		<b>5,457</b>	<b>1,003</b>	<b>736</b>		<b>7,196</b>		<b>13,936</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Storm Drain System Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2017
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2021
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	4th Qtr. 2017
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	1st Qtr. 2024
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$10,195,000
<b>Appropriation</b>	A404V	<b>FY Initiated</b>	2017-2018

**Description** This project upgrades the existing Plant stormwater drainage system to meet current City standards. The project includes modifying existing drainage facilities and constructing new storm system facilities to meet the City's 10-year design standard. This project may also include improvements to the existing combined sanitary sewer system.

**Justification** The Plant's stormwater drainage facilities do not meet the City's 10-year storm event standard. Upgrades to the existing systems are needed to prevent stormwater flooding in and around the Plant's operational area.

**Notes**

**Major Cost Changes** 2019-2023 CIP - Increase of \$3.7 million due to an escalation of construction costs.  
 2020-2024 CIP - Increase of \$1.2 million due to revised condition assessment and construction management estimates.  
 2022-2026 CIP - Decrease of \$1.7 million due to revised scope and cost estimate.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	1,616									1,616
Design	631	242								873
Bid & Award		242								242
Construction		8,906	1,621	338				1,959		10,865
Post Construction				294				294		294
<b>Total</b>	<b>2,247</b>	<b>9,390</b>	<b>1,621</b>	<b>632</b>				<b>2,253</b>		<b>13,890</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	2,247	9,390	1,621	632				2,253		13,890
<b>Total</b>	<b>2,247</b>	<b>9,390</b>	<b>1,621</b>	<b>632</b>				<b>2,253</b>		<b>13,890</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Support Building Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	1st Qtr. 2015
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	3rd Qtr. 2023
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	2nd Qtr. 2015
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	2nd Qtr. 2034
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$55,590,000
<b>Appropriation</b>	A7681	<b>FY Initiated</b>	2014-2015

**Description** This project constructs various tenant improvements to the administration, operations, engineering, and other support buildings located throughout the Plant. It may include floor, ceiling, wall, partition, plumbing, heating, ventilation and air conditioning upgrades, fire protection, and security improvements, as well as ancillary landscaping improvements. It also constructs new warehousing facilities and an electronic warehouse management system which may include new computers, a central database, barcode scanners, mobile tablets, and other technology improvements. This project will be constructed in phases based on a detailed tenant improvement study, warehouse design study, and priority of needs.

**Justification** Most of the buildings at the Plant are between 30 and 50 years old and are in need of refurbishment to improve worker health, safety, and environment. The tenant improvements are also needed to bring the buildings into compliance with current building and safety codes. The new warehousing facility and warehouse management system will improve operational efficiency through better control of the movement and storage of materials, including shipping, receiving, material stocking, use, and distribution.

**Notes** This project corresponds to Plant Master Plan Project Nos. 94, 95, 96, 98, 106, and 107 and Validation Project PF-02.

**Major Cost Changes** 2016-2020 CIP - Decrease of \$856,000 due to revised cost estimate.  
 2018-2022 CIP - Increase of \$2.2 million due to revised project delivery cost estimate.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
General Administration	0									0
Project Feasibility Development	2,079					667	686	1,353	495	3,927
Design	2,050	2,598							4,193	8,841
Bid & Award	88	322	205					205	493	1,108
Construction		17,408	4,778	1,307	438			6,523	17,071	41,002
Post Construction Equipment, Materials and Supplies		160		189	261			450	1,141	1,751
	346									346
<b>Total</b>	<b>4,563</b>	<b>20,488</b>	<b>4,983</b>	<b>1,496</b>	<b>699</b>	<b>667</b>	<b>686</b>	<b>8,531</b>	<b>23,393</b>	<b>56,975</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	4,563	20,488	4,983	1,496	699	667	686	8,531	23,393	56,975
<b>Total</b>	<b>4,563</b>	<b>20,488</b>	<b>4,983</b>	<b>1,496</b>	<b>699</b>	<b>667</b>	<b>686</b>	<b>8,531</b>	<b>23,393</b>	<b>56,975</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Various Infrastructure Decommissioning**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2018
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	2nd Qtr. 2022
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	3rd Qtr. 2023
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	3rd Qtr. 2025
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	\$22,220,000
<b>Appropriation</b>	A410S	<b>FY Initiated</b>	2018-2019

**Description** This project will decommission and remove equipment, structures, and piping located in Building 40, Pump and Engine Building, Sludge Control Building, digester campus, and tunnels.

**Justification** The decommissioning and removal of obsolete and abandoned equipment, structures, and piping will free up valuable space for future equipment or systems and improves operational and maintenance efficiencies of existing systems. The majority of the infrastructure and equipment at the Plant is more than 60 years old. It is best practice to remove obsolete facilities and equipment to avoid ongoing maintenance, comply with permit requirements, and to free up space for new equipment.

**Notes**

**Major Cost Changes**

	PRIOR YEARS	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development		469								469
Design				2,560				2,560		2,560
Bid & Award				30				30		30
Construction					18,470	628		19,098		19,098
Post Construction							63	63		63
<b>Total</b>		<b>469</b>		<b>2,590</b>	<b>18,470</b>	<b>691</b>		<b>21,751</b>		<b>22,220</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)		469		2,590	18,470	691		21,751		22,220
<b>Total</b>		<b>469</b>		<b>2,590</b>	<b>18,470</b>	<b>691</b>		<b>21,751</b>		<b>22,220</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of One-Time Projects**

**Yard Piping and Road Improvements**

<b>CSA</b>	Environmental and Utility Services	<b>Initial Start Date</b>	3rd Qtr. 2011
<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Initial End Date</b>	4th Qtr. 2026
<b>Location</b>	Water Pollution Control Plant	<b>Revised Start Date</b>	
<b>Dept Owner</b>	Environmental Services	<b>Revised End Date</b>	
<b>Council Districts</b>	4	<b>Initial Project Budget</b>	N/A
<b>Appropriation</b>	A7396	<b>FY Initiated</b>	2011-2012

**Description** This project rehabilitates and/or replaces process piping systems, valves, and related appurtenances throughout the Plant. The work will be completed in phases based on the outcome of a detailed condition assessment, physical testing, and prioritization of needs. This project will make roadway and drainage-related improvements throughout the Plant's main operations and residual management areas. This project will also address flood risks for identified junction structures, screening structures, and pump stations.

**Justification** The Plant has approximately 300,000 linear feet of piping along with associated valves and related appurtenances. The pipes range in diameter from 8 inches to 144 inches and carry gas, liquids, sludge, air, steam, and other process streams to and from the various treatment areas. The pipes vary in age, material, condition, reliability, and redundancy. Over 70 percent of the piping was installed more than 25 years ago and is in need of rehabilitation or replacement due to age, failure, and/or excessive maintenance. The Plant also has an extensive roadway network, nearly 40,000 linear feet of paved surfaces, that needs rehabilitation and/or replacement due to excessive wear, heavy vehicle traffic, and drainage issues.

**Notes** This project corresponds to Plant Master Plan Project Nos. 98 and 100 and Validation Project PF-04. Prior to 2018-2022, this project was ongoing in nature; it has since become a finite project.

**Major Cost Changes** 2019-2023 CIP - Decrease of \$14.3 million due to a decrease in project scope and a 78" SES pipe that will be replaced in the Digester and Thickener Facilities Upgrade project.  
 2022-2026 CIP - Decrease of \$11.8 million due to a decrease in project scope and construction cost estimates.  
 2023-2027 CIP - Decrease of \$39.8 million due to reduction in project scope based on updated condition assessment information that determined that certain pipe segments were in better than expected condition, so anticipated repairs weren't needed.

	<b>PRIOR YEARS</b>	<b>FY22 EST</b>	<b>FY23</b>	<b>FY24</b>	<b>FY25</b>	<b>FY26</b>	<b>FY27</b>	<b>5 YEAR TOTAL</b>	<b>BEYOND 5 YEARS</b>	<b>PROJECT TOTAL</b>
<b>Expenditure Schedule (000s)</b>										
Project Feasibility Development	4,371	1,644	1,257	735				1,992		8,007
Design	1,360	1,671	1,064	439	1,106			2,609		5,640
Bid & Award	512	229	30		328	120		478		1,219
Construction	6,850	14,541	6,011	1,335	10,884	11,278	413	29,921		51,311
Post Construction	111	100			92	94	62	248		459
<b>Total</b>	<b>13,204</b>	<b>18,185</b>	<b>8,362</b>	<b>2,509</b>	<b>12,410</b>	<b>11,492</b>	<b>475</b>	<b>35,248</b>		<b>66,637</b>

<b>Funding Source Schedule (000s)</b>										
San José-Santa Clara Treatment Plant Capital Fund (512)	13,204	18,185	8,362	2,509	12,410	11,492	475	35,248		66,637
<b>Total</b>	<b>13,204</b>	<b>18,185</b>	<b>8,362</b>	<b>2,509</b>	<b>12,410</b>	<b>11,492</b>	<b>475</b>	<b>35,248</b>		<b>66,637</b>

<b>Annual Operating Budget Impact (000s)</b>										
<b>Total</b>										



Water Pollution Capital Program  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of Ongoing Projects**

**Debt Service Repayment for Plant Capital Improvement Projects**

<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Council Districts</b>	N/A
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A402C
<b>Description</b>	This allocation provides for the repayment of financing proceeds, including short-term wastewater revenue notes and long-term bonds, drawn for the Plant Capital Improvement Projects.		

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
General Administration	5,422	5,422	315,338	29,159	31,285	33,515	35,401	444,698
<b>Total</b>	<b>5,422</b>	<b>5,422</b>	<b>315,338</b>	<b>29,159</b>	<b>31,285</b>	<b>33,515</b>	<b>35,401</b>	<b>444,698</b>

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Funding Source Schedule (000s)</b>								
San José-Santa Clara Treatment Plant Capital Fund (512)	5,422	5,422	315,338	29,159	31,285	33,515	35,401	444,698
<b>Total</b>	<b>5,422</b>	<b>5,422</b>	<b>315,338</b>	<b>29,159</b>	<b>31,285</b>	<b>33,515</b>	<b>35,401</b>	<b>444,698</b>

**Hydraulic Capacity Engineering**

<b>CSA Outcome</b>	Safe, Reliable, and Sufficient Water Supply; Reliable Utility Infrastructure	<b>Council Districts</b>	4
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A411B
<b>Description</b>	This allocation funds the expansion of the South Bay Water Recycling (SBWR) system through the construction of pipeline and ancillary distribution system projects. Use of these funds will be dedicated towards the design, engineering, and inspection for the connection of new developments to the recycled water utility system. SBWR's hydraulic capacity engineering is limited to extensions that are justified by projected water revenues, grant funding, or funds from developers or other government agencies (e.g. Santa Clara Valley Water District). No revenue from Plant Tributary Agencies or City Sanitary Sewer rate payers will be used to fund this project.		

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
Construction	125	125	25	25	25	25	25	125
<b>Total</b>	<b>125</b>	<b>125</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>125</b>

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Funding Source Schedule (000s)</b>								
South Bay Water Recycling Capital Fund (571)	125	125	25	25	25	25	25	125
<b>Total</b>	<b>125</b>	<b>125</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>25</b>	<b>125</b>

Water Pollution Capital Program  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of Ongoing Projects**

**Plant Infrastructure Improvements**

<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Council Districts</b>	4
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A5690

**Description** This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure. Examples of the ongoing replacement and rehabilitation work include handrail replacement, concrete repairs, telecommunication systems upgrade, and Plant support system improvements. 2021-2022 includes an increase of \$4.5 million, for a total allocation of \$5.5 million, for improvements to the RWF's construction-enabling area to provide sufficient infrastructure to support increased contractor activity at the Facility.

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
Construction	5,500	5,500		1,000	1,000	1,000	1,000	4,000
<b>Total</b>	<b>5,500</b>	<b>5,500</b>		<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>4,000</b>

<b>Funding Source Schedule (000s)</b>								
San José-Santa Clara Treatment Plant Capital Fund (512)	5,500	5,500		1,000	1,000	1,000	1,000	4,000
<b>Total</b>	<b>5,500</b>	<b>5,500</b>		<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>4,000</b>

**Preliminary Engineering - Water Pollution Control**

<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Council Districts</b>	4
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A7456

**Description** This allocation provides funding to support preliminary engineering for Plant-related projects, including studies, pilots, and field verifications to evaluate impacts on operations.

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
Project Feasibility Development	2,600	2,600	2,000	1,000	1,000	1,000	1,000	6,000
<b>Total</b>	<b>2,600</b>	<b>2,600</b>	<b>2,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>6,000</b>

<b>Funding Source Schedule (000s)</b>								
San José-Santa Clara Treatment Plant Capital Fund (512)	2,600	2,600	2,000	1,000	1,000	1,000	1,000	6,000
<b>Total</b>	<b>2,600</b>	<b>2,600</b>	<b>2,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>6,000</b>

Water Pollution Capital Program  
**2023-2027 Proposed Capital Improvement Program**  
**Detail of Ongoing Projects**

**Program Management - Water Pollution Control**

<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Council Districts</b>	4
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A7481

**Description** This allocation funds the administration and management of the Water Pollution Control CIP.

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
General Administration	11,386	11,386	10,579	10,317	10,459	9,707	4,115	45,177
<b>Total</b>	<b>11,386</b>	<b>11,386</b>	<b>10,579</b>	<b>10,317</b>	<b>10,459</b>	<b>9,707</b>	<b>4,115</b>	<b>45,177</b>

<b>Funding Source Schedule (000s)</b>								
San José-Santa Clara Treatment Plant Capital Fund (512)	11,386	11,386	10,579	10,317	10,459	9,707	4,115	45,177
<b>Total</b>	<b>11,386</b>	<b>11,386</b>	<b>10,579</b>	<b>10,317</b>	<b>10,459</b>	<b>9,707</b>	<b>4,115</b>	<b>45,177</b>

**Urgent and Unscheduled Treatment Plant Rehabilitation**

<b>CSA Outcome</b>	Reliable Utility Infrastructure	<b>Council Districts</b>	4
<b>Department Owner</b>	Environmental Services	<b>Appropriation</b>	A7395

**Description** This ongoing allocation is used to investigate, prioritize, and rehabilitate structures and systems at the Water Pollution Control Plant. This funding will be used to respond to the Plant's urgent maintenance and rehabilitation needs that cannot be programmed during the annual CIP budget process.

	FY22 Budget	FY22 EST	FY23	FY24	FY25	FY26	FY27	5 Year Total
<b>Expenditure Schedule (000s)</b>								
Construction	1,500	1,500	1,500	1,500	1,500	1,500	1,500	7,500
<b>Total</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>7,500</b>

<b>Funding Source Schedule (000s)</b>								
San José-Santa Clara Treatment Plant Capital Fund (512)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	7,500
<b>Total</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>7,500</b>

**Water Pollution Capital Program**  
**2023-2027 Proposed Capital Improvement Program**  
**Summary of Projects that Start After 2022-2023**

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<b>Project Name</b>	New Disinfection Facilities	<b>Initial Start Date</b>	3rd Qtr. 2020
<b>5-Yr CIP Budget</b>	\$ 7,131,000	<b>Initial End Date</b>	2nd Qtr. 2029
<b>Total Budget</b>	\$ 56,977,000	<b>Revised Start Date</b>	3rd Qtr. 2025
<b>Council Districts</b>	4	<b>Revised End Date</b>	4th Qtr. 2033
<b>Description</b>	This project constructs a new disinfection facility (currently assumed to be based on ultraviolet (UV) technology) to replace the existing sodium hypochlorite disinfection facility. It may also expand the existing chlorine contact basins to accommodate future peak hour wet weather flows and construct a new on-site hypochlorite generation facility. This project would only be triggered if new regulations concerning emerging contaminants are issued by the Regional Water Board within the next two to three NPDES permit cycles, and additional studies confirm future flow projections.		

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<b>Project Name</b>	Secondary Clarifier Rehabilitation	<b>Initial Start Date</b>	1st Qtr. 2017
<b>5-Yr CIP Budget</b>	\$ 25,777,000	<b>Initial End Date</b>	2nd Qtr. 2024
<b>Total Budget</b>	\$ 26,455,000	<b>Revised Start Date</b>	3rd Qtr. 2024
<b>Council Districts</b>	4	<b>Revised End Date</b>	2nd Qtr. 2031
<b>Description</b>	The Plant has 26 secondary clarifiers configured with peripheral mix liquor feed channel, and either central or peripheral launders. The first phase of this project rehabilitates one secondary (BNR1) clarifier and retrofits it to receive a new baffle configuration based on computational fluid dynamic (CFD) modeling results. The new configuration is expected to improve clarifier performance and efficiency. The subsequent phases of the project will rehabilitate and convert the remaining 25 clarifiers based on the results of the first phase. Rehabilitation will include structural, mechanical, electrical, and instrumentation improvements.		

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<b>Project Name</b>	Tunnel Rehabilitation	<b>Initial Start Date</b>	2nd Qtr. 2015
<b>5-Yr CIP Budget</b>	\$ 3,299,000	<b>Initial End Date</b>	4th Qtr. 2024
<b>Total Budget</b>	\$ 27,638,292	<b>Revised Start Date</b>	3rd Qtr. 2024
<b>Council Districts</b>	4	<b>Revised End Date</b>	3rd Qtr. 2032
<b>Description</b>	This project will rehabilitate and make safety improvements to the tunnel system throughout the Plant. The work may include structural, mechanical, electrical, ventilation, fire safety, and coating improvements and will be completed in phases based on a detailed condition assessment, physical testing, and prioritization of needs.		

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**Water Pollution Capital Program**  
**2022-2026 Proposed Capital Improvement Program**  
**Summary of Reserves**

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<b>Project Name</b>	Hydraulic Capacity Enhancements Reserve
<b>5-Yr CIP Budget</b>	\$ 3,666,000
<b>Total Budget</b>	\$ 3,666,000
<b>Council Districts</b>	4
<b>Description</b>	This reserve sets aside funding for future design, engineering, and inspection for the connection of new developments to the recycled water utility system. This reserve is fully funded by the South Bay Water Recycling Capital Fund; no revenue from Plant Tributary Agencies or City Sanitary Sewer rate payers has been used for the allocation of this reserve.

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# **Water Pollution Control**

## **2023-2027 Proposed Capital Improvement Program**

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### **EXPLANATION OF FUNDS**

Revenues and expenditures for the operation and maintenance of the San José-Santa Clara Regional Wastewater Facility (RWF) are accounted for by the City of San José, as the administering agency, through the San José-Santa Clara Treatment Plant Operating Fund (Operating Fund) and the San José-Santa Clara Treatment Plant Capital Fund (Capital Fund).

Revenues from the City of Santa Clara and tributary agencies of the RWF are recorded directly into the Operating and Capital Funds. The tributary agencies include the City of Milpitas, City of Cupertino, Burbank Sanitary District, County Sanitation District No. 2-3, and West Valley Sanitation District.

Tributary agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the RWF.

The Sewer Service and Use Charge Fund was established in the San José Municipal Code Section 15.12.640 in August 1959. This fund is the depository of revenues from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system within San José. A portion of these monies is transferred to the Operating and Capital Funds to pay for the City of San José's share of operating and capital costs of the RWF.

The Capital Fund provides all monies used for capital projects. Included in this fund is the Clean Water Financing Authority Payment Fund. This fund was established to track monies related specifically to the Clean Water Financing Authority.

Revenues and expenditures for the operation and maintenance of the South Bay Water Recycling system are accounted for by the South Bay Water Recycling Operating Fund. Wholesale revenues from recycled water retailers are recorded directly into the Operating fund. The South Bay Water Recycling (SBWR) Capital Fund provides monies for capital improvement projects in support of SBWR system infrastructure. These funds may be supplemented by South Bay Water Recycling Operating funds to support the capital needs of the recycled water system. Annual payment and reimbursement obligations can require the transfer of funding from the South Bay Recycled Water Operating Fund to the Sewer Service and Use Charge Fund via the San José-Santa Clara Treatment Plant Operating Fund.

# Water Pollution Control Flow of Funds

