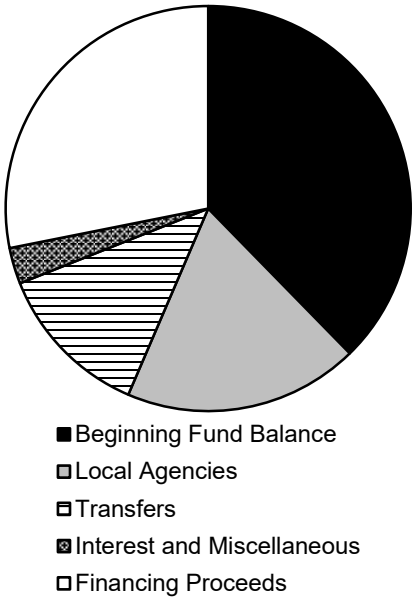
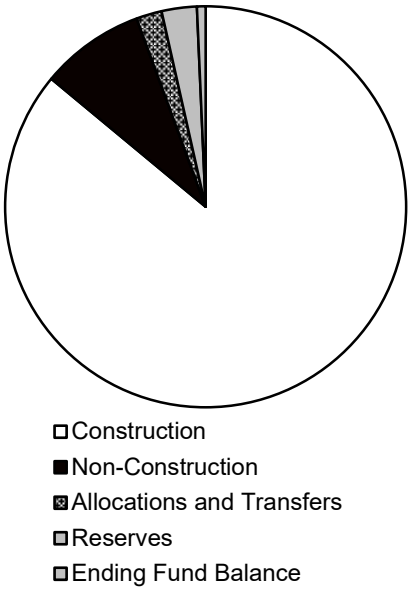
WATER POLLUTION CONTROL
2021-2025 Capital Improvement Program

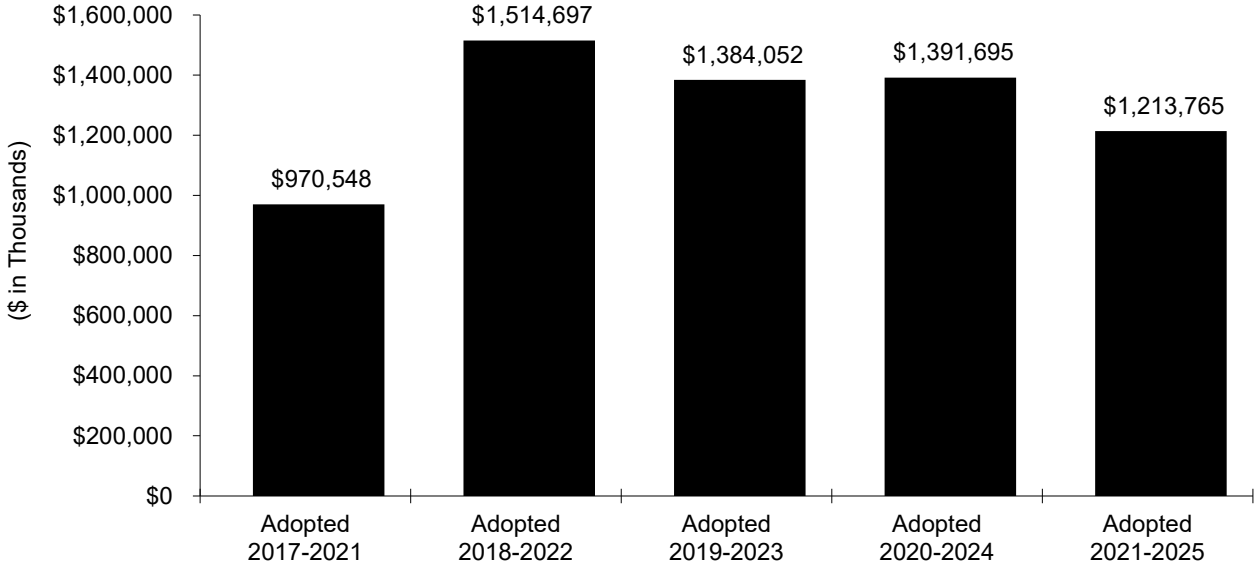
2020-2021 Adopted Source of Funds



2020-2021 Adopted Use of Funds



CIP History



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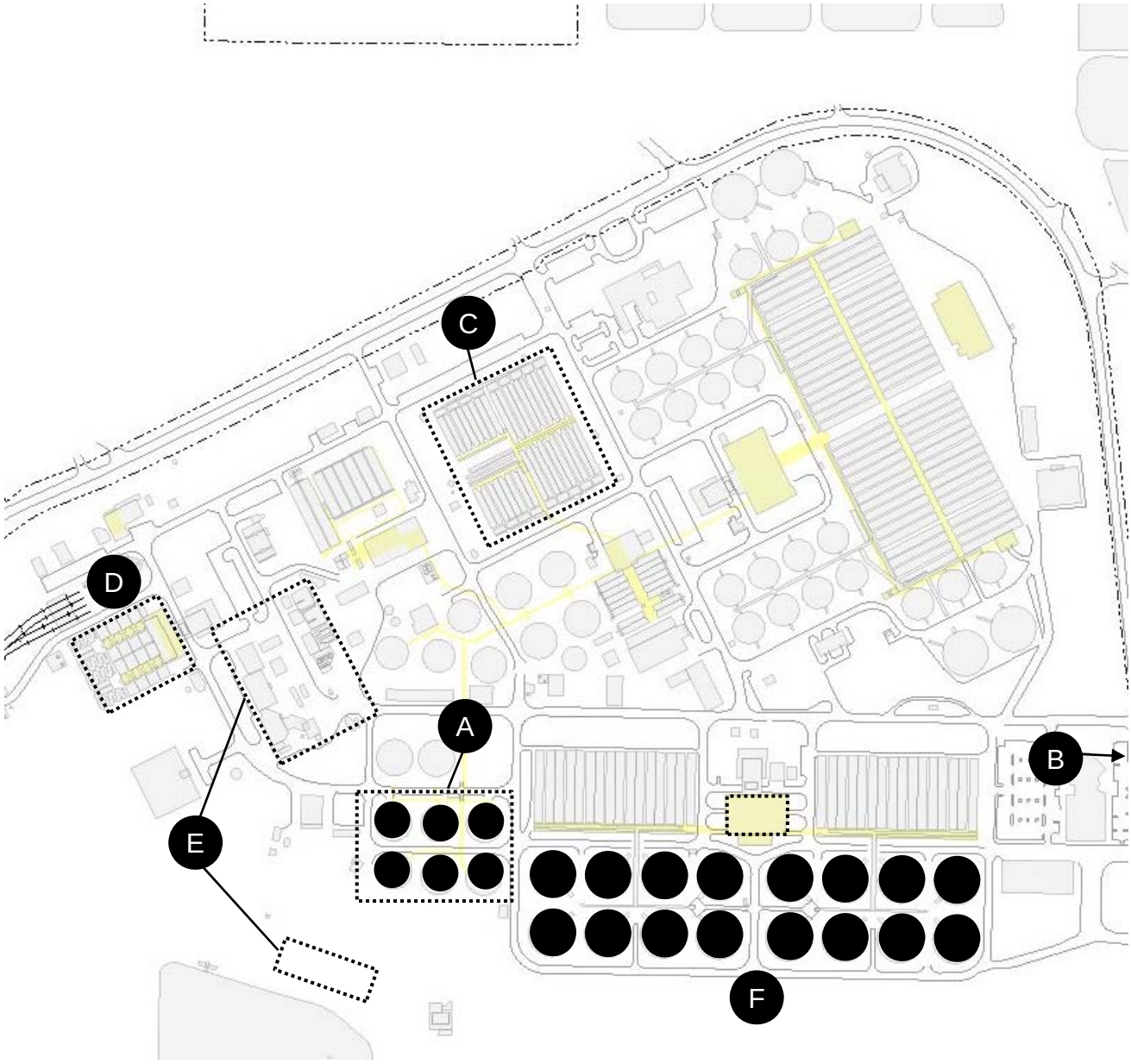
Water Pollution Control

2021-2025 Adopted Capital Improvement Program

Major Projects

A) Additional Digester Upgrades
B) Digested Sludge Dewatering Facility
C) East Primary Rehabilitation
D) Filter Rehabilitation
E) Headworks Improvements and New Headworks
F) Nitrification Clarifier Rehabilitation



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

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Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

Overview

INTRODUCTION

PLANT INFRASTRUCTURE	
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)	110
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	43,500
AVERAGE MEGAWATTS PRODUCED	5.6

The San José-Santa Clara Water Pollution Control Plant (Plant) 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 Plant 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 Plant, including water reuse facilities. On March 26, 2013, the City Council approved to change the name of the Plant to the San José-Santa Clara Regional Wastewater Facility (RWF) for use in public communications and outreach.

The 2021-2025 Adopted Capital Improvement Program (CIP) provides funding of $1.21 billion, of which $305.7 million is allocated in 2020-2021. 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 Plant. Each agency is responsible for its allocated share of Plant 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 2021-2025 Adopted 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 Plant in compliance with all applicable local, state, and federal regulatory requirements.

Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

Overview

PROGRAM PRIORITIES AND OBJECTIVES

The development of the Adopted CIP is guided by the Plant Master Plan (PMP), a 30-year planning-level document focused on long-term rehabilitation and modernization of the Plant. 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[1]. 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 Adopted 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, and on June 2, 2015, the City Council approved the Ten-Year Funding Strategy. 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.

[1] Effective January 1, 2017, MWH Americas, Inc. was acquired and merged with Stantec Consulting Services, Inc.

Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

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 recent 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.

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. 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 2021-2025 Adopted CIP assumes the issuance of long-term bonds in 2022-2023 and the establishment of a second interim financing facility in 2023-2024. In addition, staff 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.

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. In particular, to address the ramp up in large-scale construction projects, City staff developed a construction management strategy that has been incorporated into the 2021-2025 Adopted CIP. This includes increasing the construction management budget to provide the necessary support from Public Works and/or 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.

Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

Overview

PROGRAM PRIORITIES AND OBJECTIVES

On the project delivery front, it is important to recognize that several projects in the Adopted 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.

The spread of the novel coronavirus (COVID-19) in early 2020 has impacted capital projects citywide, particularly active construction projects. At the RWF, CIP staff have been working with contractors to continue construction where it possible to do so safely, but activity on a number projects has been slowed. Given the uncertainty of COVID-19, the impact to project budgets and schedules is unknown at this time, but staff will attempt to mitigate the effect of the delays.

SOURCES OF FUNDING

Revenues for the 2021-2025 Adopted 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.

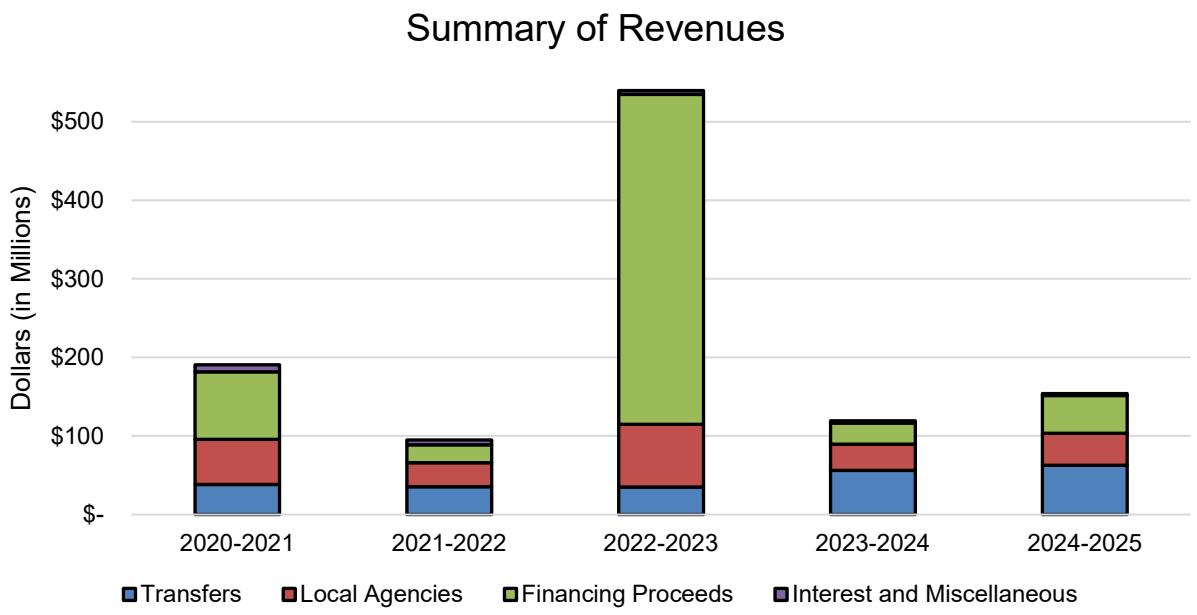
The SSUC Fund derives its revenues from fees imposed on San José users of the residential, commercial, and industrial sanitary sewer system. Transfers from this fund to the Plant CIP over the five years total $227.5 million, which represents a $24.8 million (9.8%) decrease as compared to the 2020-2024 Adopted CIP.

Contributions from the City of Santa Clara and other agencies are determined according to agreements with the participating agencies, based on financing plans, anticipated Plant expenditures, and the amount and characteristics of flows from each agency's connections to the Plant. These contributions reimburse the City for actual project expenditures. In this Adopted CIP, contributions from the City of Santa Clara and other agencies total $241.5 million, which represents a $73.0 million (23.2%) decrease compared to the 2020-2024 Adopted CIP.

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 Adopted CIP. The establishment of an interim financing program, in the form of Wastewater Revenue Notes, was approved in 2017-2018 and provides 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 $385 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 is estimated to be $4.4 million in 2020-2021, $4.2 million in 2021-2022, $303.8 million in 2022-2023 ($300.0 million for the repayment of Wastewater Revenue Notes and an additional $3.8 million for debt service), $25.2 million in 2023-2024, and $26.7 in 2024-2025. The estimated size of the debt financings and the related debt service are scheduled to cover external third-party capital costs programmed in the 2021-2025 Adopted 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 Adopted CIP period.



Water Pollution Control Capital Program

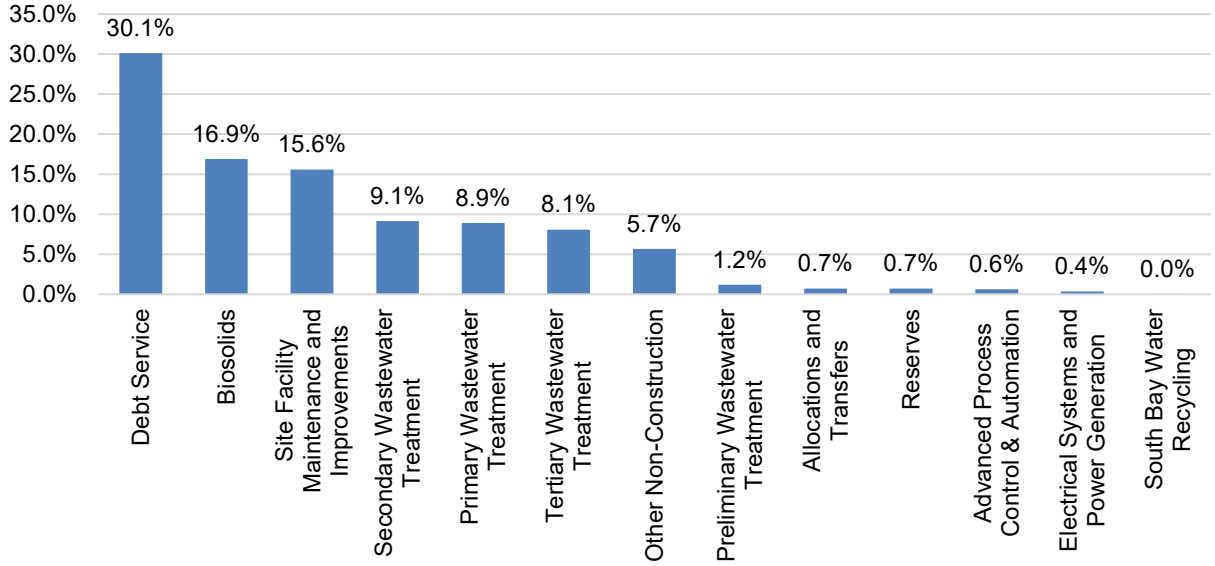
2021-2025 Adopted Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

The Water Pollution Control Capital Program's expenditures are organized to show the use of funds in several categories. The following highlights the major projects in the program. For further information on the program's individual projects, please refer to the Detail Pages.

2021-2025 Water Pollution Control Capital Program Expenditures $1,209.7 million (excludes Ending Fund Balance)



Ongoing Projects

Ongoing construction and non-construction projects are included in the funds within the Water Pollution CIP. Due to the ongoing nature of these projects, detail pages do not accompany the items. Brief descriptions of these projects are provided in the table below.

Construction Projects

Project Name	$ (CIP)	Description
Equipment Replacement	$8.3 million	This allocation provides for the urgent replacement of equipment at the Plant that is not identified in any other project.
Urgent and Unscheduled Treatment Plant Rehabilitation	$7.5 million	This ongoing allocation is used to investigate, prioritize, and rehabilitate structures and systems at the Water Pollution Control Plant.

Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

Construction Projects

Project Name	$ (CIP)	Description
Plant Infrastructure Improvements	$5.0 million	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.
Hydraulic Capacity Engineering	$125,000	This allocation funds the expansion of the South Bay Water Recycling system through the construction of pipeline and ancillary distribution system projects. No revenue from Plant Tributary Agencies or City Sanitary Sewer rate payers will be used to fund this project.

Non-Construction Projects

Project Name	$ (CIP)	Description
Debt Service Repayment for Plant Capital Improvement Projects	$364.3 million	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.
Program Management - Water Pollution Control	$44.2 million	This allocation funds the administration and management of the Water Pollution Control CIP.
Clean Water Financing Authority Debt Service Payment Fund	$5.5 million	This funding provides for the payment of the 1995 Series A and B Revenue Bonds. The moneys are transferred to the Clean Water Financing Authority Debt Service Payment Fund.
Preliminary Engineering - Water Pollution Control	$5.0 million	This allocation provides funding to support preliminary engineering for Plant-related projects, including studies, pilots, and field verifications to evaluate impacts on operations.
Payment for Clean Water Financing Authority Trustee	$10,000	This allocation provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issuances.

Water Pollution Control Capital Program

2021-2025 Adopted Capital Improvement Program

Overview

MAJOR CHANGES FROM THE 2020-2024 ADOPTED CIP

The overall size of the Water Pollution Control CIP has decreased by $178 million from $1.392 billion in the 2020-2024 Adopted CIP to $1.214 billion in the 2021-2025 Adopted CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project Name	Incr/(Decr)
New Headworks	($122.5 million)
Nitrification Clarifiers Rehabilitation	($35.5 million)
Debt Service Repayment for Plant Capital Improvement Projects	($26.8 million)
Headworks Improvements	($14.0 million)
Digested Sludge Dewatering Facility	$15.0 million
Additional Digester Upgrades	$51.6 million

OPERATING BUDGET IMPACT

Several projects in this Adopted CIP are expected to introduce new operating costs to the Operating Budget. These include: Digester and Thickener Facilities Upgrade, Digested Sludge Dewatering Facility, and New Headworks. The operation and maintenance impacts are due to chemical, labor, maintenance consumables (e.g. parts, oil), electrical, and hauling & tipping costs.

The Digester and Thickener Facilities Upgrade project will include a new chemical dosing station and new sludge screening facility, which are expected to be in operation by late 2020.

A new Digested Sludge Dewatering Facility is anticipated to be in operation by mid-2023, which will include new mechanical dewatering units, feed tank, sludge storage, conveyance, and chemical dosing facilities to be housed in a new building. This facility will allow for the eventual retirement of the current lagoons and sludge drying beds.

Net operating cost impacts will continue to be evaluated and updated based on final design and operation configurations. The table below summarizes the operating and maintenance impact to the San Jose-Santa Clara Treatment Plant Operating Fund for several projects.

Overview

OPERATING BUDGET IMPACT

Net Operating Budget Impact Summary

	2021-2022	2022-2023	2023-2024	2024-2025
New Headworks		$9,000	$26,000	$27,000
Digested Sludge Dewatering Facility		$3,062,000	$12,251,000	$12,599,000
Digester and Thickener Facilities Upgrade	$2,123,000	$2,203,000	$2,285,000	$2,370,000
	$2,123,000	$5,274,000	$14,562,000	$14,996,000

Note: The estimated operating costs have been provided by the Environmental Services Department and have not yet been fully analyzed by the City Manager's Budget Office. That analysis may result in different costs when the actual budget for the year in question is developed.

COUNCIL-APPROVED REVISIONS TO THE PROPOSED CAPITAL IMPROVEMENT PROGRAM

Changes to the Proposed Capital Improvement Program were brought forward in the Mayor's June Budget Message for Fiscal Year 2020-2021 and approved by the City Council on June 23, 2020. This included the rebudgeting of unexpended funding for projects totaling $106.2 million due to project scheduling as well as adjustments of $88,000. For additional information regarding these rebudgets and adjustments, please refer to the Manager's Budget Addendum #32 that was incorporated into the Mayor's June Budget Message.

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Source of Funds (Combined)

	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Beginning Balance	66,898,939	111,308,292	1,861,292	2,863,292	4,152,292	3,880,292	111,308,292 *
Reserve for Encumbrance	153,850,435						
Transfers							
Transfer for 2009 Debt Service from the Sewer Service and Use Charge Fund (541)	5,372,000	5,371,000					5,371,000
Transfer for Plant CIP Debt Service from Sewer Service and Use Charge Fund (541)	2,625,000	2,926,000	4,169,000	3,835,000	25,225,000	26,675,000	62,830,000
Transfer for Capital Projects from Sewer Service and Use Charge Fund (541)	27,000,000	30,000,000	30,000,000	30,000,000	30,000,000	35,000,000	155,000,000
Transfer for Equipment Replacement from Sewer Service and Use Charge Fund (541)			1,083,000	1,083,000	1,083,000	1,083,000	4,332,000
TOTAL Transfers	**34,997,000**	**38,297,000**	**35,252,000**	**34,918,000**	**56,308,000**	**62,758,000**	**227,533,000**
Revenue from Use of Money and Property							
Interest Income	6,507,000	8,364,000	5,497,000	4,461,000	2,479,000	2,282,000	23,083,000
TOTAL Revenue from Use of Money and Property	**6,507,000**	**8,364,000**	**5,497,000**	**4,461,000**	**2,479,000**	**2,282,000**	**23,083,000**
Revenue from Local Agencies							
2009 Bond Debt Repayment	155,000	155,000					155,000
WPCP Projects and Equipment Replacement	101,028,000	57,246,000	30,642,000	79,873,000	33,143,000	40,613,000	241,517,000
TOTAL Revenue from Local Agencies	**101,183,000**	**57,401,000**	**30,642,000**	**79,873,000**	**33,143,000**	**40,613,000**	**241,672,000**

2021-2025 Adopted Capital Improvement Program

Source of Funds (Combined)

Revenue from the Federal Government	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total	
U.S. Bureau of Reclamation Grant	2,465,000							
TOTAL Revenue from the Federal Government	**2,465,000**							
Other Revenue								
Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000	
TOTAL Other Revenue	**389,000**	**389,000**	**389,000**	**389,000**	**389,000**	**389,000**	**1,945,000**	
Financing Proceeds								
Wastewater Revenue Notes	179,000,000	86,000,000	23,000,000	35,000,000	27,000,000	48,000,000	219,000,000	
Bond Proceeds				385,000,000			385,000,000	
TOTAL Financing Proceeds	**179,000,000**	**86,000,000**	**23,000,000**	**420,000,000**	**27,000,000**	**48,000,000**	**604,000,000**	
Total San José-Santa Clara Treatment Plant Capital Fund (512)	**545,290,374**	**301,759,292**	**96,641,292**	**542,504,292**	**123,471,292**	**157,922,292**	**1,209,541,292**	*
South Bay Water Recycling Capital Fund (571)								
Beginning Balance	3,832,975	3,888,975	264,975	306,975	348,975	390,975	3,888,975	*
Revenue from Use of Money and Property								
Interest Income	81,000	67,000	67,000	67,000	67,000	67,000	335,000	
TOTAL Revenue from Use of Money and Property	**81,000**	**67,000**	**67,000**	**67,000**	**67,000**	**67,000**	**335,000**	
Total South Bay Water Recycling Capital Fund (571)	**3,913,975**	**3,955,975**	**331,975**	**373,975**	**415,975**	**457,975**	**4,223,975**	*
TOTAL SOURCES	**549,204,349**	**305,715,267**	**96,973,267**	**542,878,267**	**123,887,267**	**158,380,267**	**1,213,765,267**	*

* The 2021-2022 through 2024-2025 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

2021-2025 Adopted Capital Improvement Program

Use of Funds (Combined)

	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
Water Pollution Control							
Headworks Improvements	14,858,657	2,238,000	165,000	65,000	4,000		2,472,000
New Headworks	131,427,891	9,946,000	1,361,000	611,000	22,000		11,940,000
Preliminary Wastewater Treatment	**146,286,548**	**12,184,000**	**1,526,000**	**676,000**	**26,000**		**14,412,000**
East Primary Rehabilitation, Seismic Retrofit, and Odor Control		1,000,000	10,885,000	94,530,000	686,000	684,000	107,785,000
Primary Wastewater Treatment		**1,000,000**	**10,885,000**	**94,530,000**	**686,000**	**684,000**	**107,785,000**
Aeration Tanks and Blower Rehabilitation	42,449,047	4,790,000	7,857,000	1,074,000	707,000	58,419,000	72,847,000
Nitrification Clarifier Rehabilitation	36,820,182	19,485,000	2,518,000	30,929,000	2,152,000	1,874,000	56,958,000
Secondary Clarifier Rehabilitation					565,000	2,833,000	3,398,000
Secondary Wastewater Treatment	**79,269,228**	**24,275,000**	**10,375,000**	**32,003,000**	**3,424,000**	**63,126,000**	**133,203,000**
Filter Rehabilitation	1,941,304	48,842,000	1,244,000	1,102,000	101,000		51,289,000
Final Effluent Pump Station & Stormwater Channel Improvements	576,000	2,335,000	4,503,000	880,000	35,975,000	1,645,000	45,338,000
Outfall Bridge and Levee Improvements	6,696,633	533,000	569,000				1,102,000
Tertiary Wastewater Treatment	**9,213,937**	**51,710,000**	**6,316,000**	**1,982,000**	**36,076,000**	**1,645,000**	**97,729,000**
Additional Digester Upgrades			1,191,000	8,031,000	1,298,000	51,576,000	62,096,000
Digested Sludge Dewatering Facility	12,664,279	129,109,000	5,361,000	1,926,000	74,000		136,470,000
Digester and Thickener Facilities Upgrade	54,138,401	5,784,000					5,784,000
Biosolids	**66,802,679**	**134,893,000**	**6,552,000**	**9,957,000**	**1,372,000**	**51,576,000**	**204,350,000**
Energy Generation Improvements	50,134,228	2,568,000					2,568,000
Plant Electrical Reliability	6,906,455	1,017,000	693,000				1,710,000
Electrical Systems and Power Generation	**57,040,684**	**3,585,000**	**693,000**				**4,278,000**
Advanced Facility Control and Meter Replacement	15,128,870	6,143,000	408,000	322,000			6,873,000
Treatment Plant Distributed Control System	6,312,105	745,000					745,000

2021-2025 Adopted Capital Improvement Program

Use of Funds (Combined)

	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
Advanced Process Control & Automation	**21,440,975**	**6,888,000**	**408,000**	**322,000**			**7,618,000**
Facility Wide Water Systems Improvements	1,220,715	4,005,000	1,196,000	7,748,000	463,000	422,000	13,834,000
Flood Protection	118,141	1,428,000					1,428,000
Plant Infrastructure Improvements	1,957,786	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Storm Drain System Improvements	585,931	1,083,000	11,116,000	807,000	652,000		13,658,000
Support Building Improvements	2,967,058	4,314,000		13,090,000	969,000	967,000	19,340,000
Urgent and Unscheduled Treatment Plant Rehabilitation	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		22,220,000
Yard Piping and Road Improvements	9,128,860	13,319,000	16,972,000	37,559,000	35,707,000	1,870,000	105,427,000
Site Facility Maintenance and Improvements	**16,478,491**	**27,118,000**	**34,374,000**	**80,174,000**	**40,982,000**	**5,759,000**	**188,407,000**
Hydraulic Capacity Engineering	25,000	25,000	25,000	25,000	25,000	25,000	125,000
South Bay Water Recycling	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**	**25,000**	**125,000**
Legacy Lagoons Biosolids Remediation	6,742,066	1,295,000					1,295,000
Legacy Lagoons	**6,742,066**	**1,295,000**					**1,295,000**
Water Pollution Control - Construction	**403,299,609**	**262,973,000**	**71,154,000**	**219,669,000**	**82,591,000**	**122,815,000**	**759,202,000**
Debt Service Repayment for Plant Capital Improvement Projects	4,188,000	4,426,000	4,169,000	303,834,000	25,225,000	26,675,000	364,329,000
Equipment Replacement	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
Owner Controlled Insurance Program	5,290,000	4,839,000	3,705,000	1,399,000	1,264,000		11,207,000
Master Plan Updates	1,500,000						
Preliminary Engineering - Water Pollution Control	1,674,737	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
Program Management - Water Pollution Control	9,793,393	13,720,000	11,712,000	9,794,000	7,426,000	1,576,000	44,228,000
General Non-Construction - Water Pollution Control	**24,109,131**	**25,648,000**	**22,249,000**	**317,690,000**	**36,578,000**	**30,914,000**	**433,079,000**
Water Pollution Control - Non Construction	**24,109,131**	**25,648,000**	**22,249,000**	**317,690,000**	**36,578,000**	**30,914,000**	**433,079,000**
Public Art Allocation	253,342						

Water Pollution Control

2021-2025 Adopted Capital Improvement Program

Use of Funds (Combined)

	Estimated 2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	5-Year Total
Public Art Projects	**253,342**						
Capital Program and Public Works Department Support Service Costs	724,000	677,000	298,000	921,000	350,000	522,000	2,768,000
Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000				10,000
Allocations	**729,000**	**682,000**	**303,000**	**921,000**	**350,000**	**522,000**	**2,778,000**
City Hall Debt Service Fund	89,000	94,000	97,000	97,000	97,000	97,000	482,000
Clean Water Financing Authority Debt Service Payment Fund	5,527,000	5,526,000					5,526,000
Transfers to Special Funds	**5,616,000**	**5,620,000**	**97,000**	**97,000**	**97,000**	**97,000**	**6,008,000**
Transfers Expense	**5,616,000**	**5,620,000**	**97,000**	**97,000**	**97,000**	**97,000**	**6,008,000**
Equipment Replacement Reserve		5,000,000					5,000,000
Hydraulic Capacity Enhancements Reserve		3,666,000					3,666,000
Expense Reserves - Non Construction		**8,666,000**					**8,666,000**
Total Expenditures	**434,007,082**	**303,589,000**	**93,803,000**	**538,377,000**	**119,616,000**	**154,348,000**	**1,209,733,000**
Ending Fund Balance	115,197,267	2,126,267	3,170,267	4,501,267	4,271,267	4,032,267	4,032,267 *
TOTAL	**549,204,349**	**305,715,267**	**96,973,267**	**542,878,267**	**123,887,267**	**158,380,267**	**1,213,765,267 ***

* The 2020-2021 through 2023-2024 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

Advanced Facility Control and Meter Replacement

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Environmental Services
Location	Water Pollution Control Plant
Council Districts	4
Appropriation	A7224

Initial Start Date	3rd Qtr. 2010
Initial End Date	2nd Qtr. 2014
Revised Start Date	
Revised End Date	2nd Qtr. 2023
Initial Project Budget	$11,000,000
FY Initiated	2010-2011

Description This project develops and executes a Plant-wide automation master plan; replaces existing flow meters and actuators; and upgrades sensors, controls, and monitoring equipment throughout the Plant.

Justification The Plant currently has hundreds of meters measuring liquid, sludge, and gas streams. Many existing sensors, actuators, and flow meters are inaccurate or unreliable. Due to their age, it is more cost effective to replace them with modern equipment to ensure performance reliability and assure that needed components are available for ongoing maintenance. This project will allow the Plant to move towards improved data capture, resulting in greater operational reliability and flexibility.

Notes This project corresponds to Plant Master Plan No. 90 and Validation Project PA-01.

Major Cost Changes 2012-2016 CIP through 2017-2021 CIP - increase of $16.9 million due to updated cost estimates, revised scope, addition of meter replacement scope, and project validation cost estimate.
2018-2022 CIP - decrease of $4.1 million due to reduction of scope.
2019-2023 CIP - increase of $17.9 million due to an increase in scope and updated construction cost estimate.
2020-2024 CIP - decrease of $7.4 million due to lower than expected construction bids for Phase I, resulting in a reduced expected cost estimate for Phase II.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,847	0								1,848
Design	1,636	200								1,836
Bid & Award	94	291							76	461
Construction	3,659	14,392	6,143	408	226			6,777	4,836	29,664
Post Construction	3	245			96			96	25	370
Total	**7,240**	**15,129**	**6,143**	**408**	**322**			**6,873**	**4,937**	**34,178**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	7,240	15,129	6,143	408	322			6,873	4,937	34,178
Total	**7,240**	**15,129**	**6,143**	**408**	**322**			**6,873**	**4,937**	**34,178**
Annual Operating Budget Impact (000s)										
Total										

Aeration Tanks and Blower Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2015
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	3rd Qtr. 2025
Department	Environmental Services	**Revised Start Date**	2nd Qtr. 2015
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2029
Council Districts	4	**Initial Project Budget**	$114,880,000
Appropriation	A7677	**FY Initiated**	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; repairs concrete and applies coatings; installs Variable Frequency Drives (VFDs), new motors, new Motor Control Centers (MCC), and new controls to 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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	5,703	2,306								8,009
Design	4,329	1,421		6,584	878	707		8,169		13,919
Bid & Award	273	217					327	327		817
Construction	1,599	38,504	4,790	1,273			58,092	64,155	4,247	108,505
Post Construction					196			196	133	329
Total	**11,904**	**42,449**	**4,790**	**7,857**	**1,074**	**707**	**58,419**	**72,847**	**4,380**	**131,580**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	11,904	42,449	4,790	7,857	1,074	707	58,419	72,847	4,380	131,580
Total	**11,904**	**42,449**	**4,790**	**7,857**	**1,074**	**707**	**58,419**	**72,847**	**4,380**	**131,580**
Annual Operating Budget Impact (000s)										
Total										

Digested Sludge Dewatering Facility

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2014
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2023
Council Districts	4	**Initial Project Budget**	$1,000,000
Appropriation	A7452	**FY Initiated**	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.

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 milion 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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	5,193	573								5,765
Design	116	11,515	3,095	762				3,857		15,488
Bid & Award	1,067	576								1,643
Construction			126,014	4,599	1,434			132,047		132,047
Post Construction					492	74		566		566
Total	**6,375**	**12,664**	**129,109**	**5,361**	**1,926**	**74**		**136,470**		**155,509**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	6,375	12,664	129,109	5,361	1,926	74		136,470		155,509
Total	**6,375**	**12,664**	**129,109**	**5,361**	**1,926**	**74**		**136,470**		**155,509**

Annual Operating Budget Impact (000s)			
Operating	3,004	12,019	12,360
Maintenance	58	232	239
Total	**3,062**	**12,251**	**12,599**

Digester and Thickener Facilities Upgrade

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2006
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2008
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2021
Council Districts	4	**Initial Project Budget**	$1,000,000
Appropriation	A4127	**FY Initiated**	2006-2007

Description This project rehabilitates four digesters and modifies the system to operate as a two-phase Temperature Phased Anaerobic Digestion (TPAD) system. The project also rehabilitates and modifies six dissolved air flotation units for sludge co-thickening, pressure saturation tanks, pipes, pumps, and ancillary equipment. A new odor control system, primary sludge screening facility, heat exchangers, biogas flare, and polymer dosing facility will be constructed. A new rack mounted digester gas conveyance system will also be constructed above grade to replace existing piping in the digester tunnels.

Justification The Plant has 16 anaerobic digesters constructed between 1956 and 1983, of which six are permanently out of service. This project is needed to ensure safe and reliable operation of the digester facilities including the gas conveyance system. The upgrade to TPAD provides the facility with the ability to increase biogas production and produce Class A biosolids (if required by future regulations).

Notes This project corresponds to Plant Master Plan Project Nos. 45 - 53 and Validation Project PS-01. Prior to 2015-2019, this project was titled "Digester Rehabilitation".

Major Cost Changes 2008-2012 CIP through 2019-2023 CIP - increase of $168.3 million due to increased scope, realignment of project, higher than projected construction costs, inclusion of scope from other projects, and unforeseen conditions during construction, including air board regulatory requirements, major utility relocations, and a 78" SES line.
2020-2024 CIP - increase of $31.5 million due to unforeseen conditions and increased construction management costs.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	707	0								707
Design	15,971	31								16,002
Bid & Award	115									115
Construction	123,552	54,107	5,614					5,614		183,273
Post Construction			170					170		170
Total	**140,344**	**54,138**	**5,784**					**5,784**		**200,267**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	140,344	54,138	5,784					5,784		200,267
Total	**140,344**	**54,138**	**5,784**					**5,784**		**200,267**

Annual Operating Budget Impact (000s)				
Operating	1,799	1,865	1,934	2,005
Maintenance	324	338	351	365
Total	**2,123**	**2,203**	**2,285**	**2,370**

East Primary Rehabilitation, Seismic Retrofit, and Odor Control

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Environmental Services
Location	Water Pollution Control Plant
Council Districts	4
Appropriation	A7226

Initial Start Date	3rd Qtr. 2009
Initial End Date	4th Qtr. 2012
Revised Start Date	3rd Qtr. 2010
Revised End Date	1st Qtr. 2030
Initial Project Budget	$3,605,000
FY Initiated	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	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	56		1,000	1,361				2,361		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
Total	**86**		**1,000**	**10,885**	**94,530**	**686**	**684**	**107,785**	**5,103**	**112,974**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	86		1,000	10,885	94,530	686	684	107,785	5,103	112,974
Total	**86**		**1,000**	**10,885**	**94,530**	**686**	**684**	**107,785**	**5,103**	**112,974**
Annual Operating Budget Impact (000s)										
Total										

Energy Generation Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	1st Qtr. 2012
Location	Water Pollution Control Pant	**Revised End Date**	1st Qtr. 2021
Council Districts	4	**Initial Project Budget**	$1,300,000
Appropriation	A7454	**FY Initiated**	2012-2013

Description This project will install new, lower-emission engine-generators to replace the aged existing engine-generators and allow the aged engine-driven blowers to be retired. It includes a new generator building, gas cleaning and blending systems, piping, control system, and motor control centers. This project will also install emergency diesel generators and storage tanks to provide backup power in the event of an extended PG&E power outage.

Justification Energy generation capacity and operational reliability are significant issues at the Plant. The outdated engine-generators are increasingly difficult to maintain. Moreover, while the existing systems meet current air regulations, they will not meet the stricter regulations anticipated in the future. Replacing these facilities with new lower-emission engine-generators will reduce the risk of operational failure and permit violations while providing reliable energy generating facilities to power the Plant for decades.

Notes This project corresponds to Plant Master Plan Nos. 74, 75, and 76 and Validation Projects PE-01 and PE-02. Prior to 2014-2018, this project was titled "Combined Heat and Power Technology Evaluation".

Major Cost Changes 2014-2018 CIP through 2018-2022 CIP - increase of $126.5 million due to acceleration of the implementation schedule, revised program validation cost estimate, revised scope and revised construction and cost estimates. 2020-2024 CIP - increase of $2.5 million due to increased construction management costs.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	2,286	0								2,286
Design	10,354	0								10,354
Bid & Award	1,376	92								1,468
Construction	65,049	50,043	2,189					2,189		117,281
Post Construction	280		79					79		359
Equipment, Materials and Supplies			300					300		300
Total	**79,345**	**50,134**	**2,568**					**2,568**		**132,047**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	79,345	50,134	2,568					2,568		132,047
Total	**79,345**	**50,134**	**2,568**					**2,568**		**132,047**
Annual Operating Budget Impact (000s)										
Total										

Facility Wide Water Systems Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	1st Qtr. 2022
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2025
Council Districts	4	**Initial Project Budget**	$14,130,000
Appropriation	A7679	**FY Initiated**	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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,878	1,221	558					558		3,657
Design	7		2,613	286				2,899		2,906
Bid & Award	6		109	210				319		325
Construction			725	700	7,748	463	248	9,884		9,884
Post Construction							174	174	76	250
Total	**1,892**	**1,221**	**4,005**	**1,196**	**7,748**	**463**	**422**	**13,834**	**76**	**17,022**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	1,892	1,221	4,005	1,196	7,748	463	422	13,834	76	17,022
Total	**1,892**	**1,221**	**4,005**	**1,196**	**7,748**	**463**	**422**	**13,834**	**76**	**17,022**
Annual Operating Budget Impact (000s)										
Total										

Filter Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2011
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2014
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2023
Council Districts	4	**Initial Project Budget**	$3,506,000
Appropriation	A7227	**FY Initiated**	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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	2,047	0								2,047
Design	3,176	1,416	1,220					1,220		5,813
Bid & Award	18	524								543
Construction	227	1	47,522	1,244	1,102			49,868		50,096
Post Construction			100			101		201		201
Total	**5,468**	**1,941**	**48,842**	**1,244**	**1,102**	**101**		**51,289**		**58,699**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	5,468	1,941	48,842	1,244	1,102	101		51,289		58,699
Total	**5,468**	**1,941**	**48,842**	**1,244**	**1,102**	**101**		**51,289**		**58,699**
Annual Operating Budget Impact (000s)										
Total										

Final Effluent Pump Station & Stormwater Channel Improvements

CSA	Environmental and Utility Services
CSA Outcome	Reliable Utility Infrastructure
Department	Environmental Services
Council Districts	4
Appropriation	A412H

Initial Start Date	3rd Qtr. 2019
Initial End Date	3rd Qtr. 2025
Revised Start Date	
Revised End Date	2nd Qtr. 2025
Initial Project Budget	$47,358,000
FY Initiated	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.

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

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development		576	2,335	503				2,838		3,414
Design				4,000	880	233		5,113		5,113
Bid & Award						189		189		189
Construction						35,553	1,645	37,198	1,250	38,448
Post Construction									194	194
Total		**576**	**2,335**	**4,503**	**880**	**35,975**	**1,645**	**45,338**	**1,444**	**47,358**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)		576	2,335	4,503	880	35,975	1,645	45,338	1,444	47,358
Total		**576**	**2,335**	**4,503**	**880**	**35,975**	**1,645**	**45,338**	**1,444**	**47,358**
Annual Operating Budget Impact (000s)										
Total										

Flood Protection

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2021
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	$9,136,000
Appropriation	A402M	**FY Initiated**	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. Funds will be programmed in this appropriation as part of the next budget cycle after additional engineering is performed to determine the revised scope and schedule.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	219	118	1,266					1,266		1,603
Design			162					162		162
Total	**219**	**118**	**1,428**					**1,428**		**1,765**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	219	118	1,428					1,428		1,765
Total	**219**	**118**	**1,428**					**1,428**		**1,765**
Annual Operating Budget Impact (000s)										
Total										

Headworks Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2015
Department	Environmental Services	**Revised Start Date**	1st Qtr. 2013
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2023
Council Districts	4	**Initial Project Budget**	$5,975,000
Appropriation	A7448	**FY Initiated**	2012-2013

Description This project will modify Headworks No. 2 (HW2) to accommodate all dry weather flow. Improvements include re-routing some inlet and recycle flow piping, new storm water pump stations, and other mechanical enhancements to improve reliability and operation performance.

Justification HW1 was built in the mid-1950s and early 1960s and is the Plant's duty headworks. HW2 was built in 2008 and designed to operate in parallel with HW1 to handle peak hour wet weather flow. This project will improve the functional reliability of HW2.

Notes This project corresponds to Plant Master Plan Project Nos. 1, 2, and 7 and Validation Project PLH-01.

Major Cost Changes
2015-2019 CIP - increase of $23.7 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $863,000 due to revised cost estimate.
2018-2022 CIP - decrease of $9.0 million due to reduction of scope to eliminate a condition assessment of HW1.
2020-2024 CIP - increase of $1.3 million due to revised construction cost estimate.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	1,445	0								1,445
Design	978	720	628					628		2,326
Bid & Award	461	98								560
Construction	2,031	14,040	1,535	165	61			1,761		17,832
Post Construction	22		75		4	4		83		105
Total	**4,937**	**14,859**	**2,238**	**165**	**65**	**4**		**2,472**		**22,268**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	4,937	14,859	2,238	165	65	4		2,472		22,268
Total	**4,937**	**14,859**	**2,238**	**165**	**65**	**4**		**2,472**		**22,268**
Annual Operating Budget Impact (000s)										
Total										

Legacy Lagoons Biosolids Remediation

CSA	Environmental and Utility Services	**Initial Start Date**	2nd Qtr. 2020
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	4th Qtr.2020
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	
Council Districts	4	**Initial Project Budget**	$8,037,000
Appropriation	A418N	**FY Initiated**	2019-2020

Description This project remediates 23 legacy biosolid lagoons by consolidating and permanently capping the biosolids into a smaller footprint within the project area. Remediation of lagoons L-16 to L-19 is prioritized to meet the aggressive timeline and realignment of the adjacent South Bay Shoreline Levee Project led by the U.S. Army Corps of Engineers (USACE).

Justification From 1962 to 1974, the Plant accumulated biosolids in a series of 25 bermed lagoons located north of the Plant's main operational area. The biosolids from two lagoons were cleaned and relocated to an adjacent lagoon in the early 1990's. The remaining 23 inactive lagoons cover 168-acres and contain a total of approximately 750,000 cubic yards of biosolids. Historical sampling and analysis of the legacy biosolids has characterized the material as potentially hazardous waste under California law due to concentrations of cadmium, lead, and chromium that exceed disposal thresholds.

As part of the Plant Master Plan, the City recognized and approved the remediation of the legacy biosolid lagoons. In August 2019, the Regional Water Quality Control Board issued Order No. R2-2019-0026 mandating that the Facility remediate the inactive lagoons.

Notes

Major Cost Changes

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Construction		6,742	1,295					1,295		8,037
Total		**6,742**	**1,295**					**1,295**		**8,037**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)		6,742	1,295					1,295		8,037
Total		**6,742**	**1,295**					**1,295**		**8,037**
Annual Operating Budget Impact (000s)										
Total										

New Headworks

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2013
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	3rd Qtr. 2023
Council Districts	4	**Initial Project Budget**	$79,400,000
Appropriation	A7449	**FY Initiated**	2012-2013

Description This project will construct a new headworks to serve as the Plant's duty headworks. It also involves lining the emergency overflow basin and installing spraydown systems to facilitate cleaning. The project will also be tasked with odor control over select areas, such as junction boxes and grit collection. This project will need to be coordinated with the modifications made to the Headworks 2 hydraulics and the eventual decommissioning of Headworks 1.

Justification Headworks No. 1 was built in the mid-1950s and further expanded in the 1960s. Due to its age and condition, extensive structural rehabilitation and mechanical rehabilitation would be needed to operate it as the Plant's long-term duty headworks. Based on previous studies, building a new duty headworks facility would be more cost effective and provide greater operational reliability and enhanced treatment, potentially piping and hydraulic simplification, addressing some of the operational issues currently experienced at the Plant, such as the deposition of grit in downstream processes.

Notes This project corresponds to Plant Master Plan Project Nos. 1, 3, 4, 5, and 8 and Validation Project PLH-02.

Major Cost Changes
2015-2019 CIP - increase of $11.8 million due to incorporation of a portion of Headworks No. 2 Enhancement project.
2016-2020 CIP - increase of $4.8 million due to revised cost.
2018-2022 CIP - increase of $27.0 million due to revised project cost estimate.
2020-2024 CIP - increase of $19.4 million due to an updated construction cost estimate.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	3,468	0								3,468
Design	4,495	4,432	156					156		9,083
Bid & Award	1,184	246								1,431
Construction	9	126,749	9,365	1,361	590			11,316		138,074
Post Construction			425		21	22		468		468
Total	**9,155**	**131,428**	**9,946**	**1,361**	**611**	**22**		**11,940**		**152,523**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	9,155	131,428	9,946	1,361	611	22		11,940		152,523
Total	**9,155**	**131,428**	**9,946**	**1,361**	**611**	**22**		**11,940**		**152,523**

Annual Operating Budget Impact (000s)			
Operating	9	26	27
Total	**9**	**26**	**27**

Nitrification Clarifier Rehabilitation

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2009
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2024
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2025
Council Districts	4	**Initial Project Budget**	$26,701,000
Appropriation	A7074	**FY Initiated**	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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	3,829	53								3,882
Design	2,267	188	323	833				1,156		3,611
Bid & Award	82	151	94	213				307		540
Construction	6	36,317	18,928	1,472	30,698	2,152	1,110	54,360		90,684
Post Construction		111	140		231		764	1,135		1,246
Total	**6,184**	**36,820**	**19,485**	**2,518**	**30,929**	**2,152**	**1,874**	**56,958**		**99,962**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	6,184	36,820	19,485	2,518	30,929	2,152	1,874	56,958		99,962
Total	**6,184**	**36,820**	**19,485**	**2,518**	**30,929**	**2,152**	**1,874**	**56,958**		**99,962**
Annual Operating Budget Impact (000s)										
Total										

Outfall Bridge and Levee Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2014
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2019
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2022
Council Districts	4	**Initial Project Budget**	$8,120,000
Appropriation	A7678	**FY Initiated**	2014-2015

Description This project includes a condition assessment, bridge repairs or replacement, levee and levee gate repairs, and electrical transformer refurbishment.

Justification The existing outfall bridge and instrumentation supports are in poor condition. In addition, the west-side levee of Pond A-18 is experiencing significant erosion. This project will improve the aging facilities to ensure reliability at the outfall compliance point.

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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	638	272								910
Design	139	771								909
Bid & Award	2	126								128
Construction	10	5,528	533	362				895		6,434
Post Construction				207				207		207
Total	**789**	**6,697**	**533**	**569**				**1,102**		**8,588**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	789	6,697	533	569				1,102		8,588
Total	**789**	**6,697**	**533**	**569**				**1,102**		**8,588**
Annual Operating Budget Impact (000s)										
Total										

Plant Electrical Reliability

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2003
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2014
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2022
Council Districts	4	**Initial Project Budget**	$7,671,000
Appropriation	A4341	**FY Initiated**	2003-2004

Description This project replaces substations and switches, modifies power distribution buses and cabling, and provides backup systems to enhance the overall safety and reliability of the Plant electrical systems. The project includes a multi-phase construction schedule based upon a study completed in 2004.

Justification The current power distribution network has grown in a patched manner over the years, and many electrical system components have reached the end of their service life. This project addresses immediate safety needs and provides for future reliability needs.

Notes This project replaces a formerly ongoing allocation titled "Electrical System Improvements".

Major Cost Changes
2005-2009 CIP - increase of $33.5 million to fund construction/rehabilitation costs due to increased project scope.
2007-2011 CIP - increase of $15.6 million to fund construction/rehabilitation costs due to increased project scope.
2008-2012 CIP - increase of $26.5 million to fund construction/rehabilitation costs due to increased project scope.
2009-2013 CIP - decrease of $3.0 million to reflect a project scope change.
2011-2015 CIP - increase of $11.4 million due to increased project scope.
2013-2017 CIP - decrease of $64.7 million due to removal of the Gas Turbine/Internal Combustion Engine project scope, which is being refined and will be included as part of the Energy Generation Improvements project.
2014-2018 CIP - decrease of $1.4 million due to decreased project scope.
2015-2019 CIP - increase of $6.0 million due to revised project validation cost estimate.
2017-2021 CIP - decrease of $1.2 million due to revised project scope.
2020-2024 CIP - increase of $2.2 million due to revised construction cost estimate.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	669									669
Design	1,875	370								2,245
Bid & Award	49	102								151
Construction	20,512	6,434	931	583				1,514		28,460
Post Construction	23		86	110				196		219
Total	**23,128**	**6,906**	**1,017**	**693**				**1,710**		**31,745**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	23,128	6,906	1,017	693				1,710		31,745
Total	**23,128**	**6,906**	**1,017**	**693**				**1,710**		**31,745**
Annual Operating Budget Impact (000s)										
Total										

Storm Drain System Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2017
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2021
Department	Environmental Services	**Revised Start Date**	4th Qtr. 2017
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2024
Council Districts	4	**Initial Project Budget**	$10,195,000
Appropriation	A404V	**FY Initiated**	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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	858	586	3					3		1,447
Design			1,080	118				1,198		1,198
Bid & Award				159				159		159
Construction				10,839	807	620		12,266		12,266
Post Construction						32		32		32
Total	**858**	**586**	**1,083**	**11,116**	**807**	**652**		**13,658**		**15,102**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	858	586	1,083	11,116	807	652		13,658		15,102
Total	**858**	**586**	**1,083**	**11,116**	**807**	**652**		**13,658**		**15,102**
Annual Operating Budget Impact (000s)										
Total										

Support Building Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2015
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	3rd Qtr. 2023
Department	Environmental Services	**Revised Start Date**	2nd Qtr. 2015
Location	Water Pollution Control Plant	**Revised End Date**	4th Qtr. 2033
Council Districts	4	**Initial Project Budget**	$55,590,000
Appropriation	A7681	**FY Initiated**	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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration	0									0
Project Feasibility Development	2,046	247							1,848	4,141
Design	365	550	787					787	4,193	5,896
Bid & Award	17	113	174					174	493	796
Construction		2,057	3,240		13,090	969	967	18,266	23,032	43,355
Post Construction			113					113	1,141	1,254
Equipment, Materials and Supplies	346									346
Total	**2,774**	**2,967**	**4,314**		**13,090**	**969**	**967**	**19,340**	**30,707**	**55,789**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	2,774	2,967	4,314		13,090	969	967	19,340	30,707	55,789
Total	**2,774**	**2,967**	**4,314**		**13,090**	**969**	**967**	**19,340**	**30,707**	**55,789**
Annual Operating Budget Impact (000s)										
Total										

Treatment Plant Distributed Control System

CSA	Environmental and Utility Services	**Initial Start Date**	1st Qtr. 2012
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2016
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2021
Council Districts	4	**Initial Project Budget**	$4,065,000
Appropriation	A7394	**FY Initiated**	2012-2013

Description This project upgrades and converts the existing Distributed Control System (DCS) at the Plant. The system is composed of a network of field controllers, workstations, and servers that control most aspects of Plant operations. This project consists of three phases. Phase I is completed and ensured that the system was upgraded and will be supported by the vendor. The wiring and replacement of field communication hardware will be done in Phase II, and a new controller and programming will be added in Phase III.

Justification Upgrading this system is vital to maintaining efficient operations and improving monitoring capabilities.

Notes

Major Cost Changes
2014-2018 CIP - increase of $499,000 due to higher than expected consultant costs.
2015-2019 CIP - decrease of $163,000 due to lower than expected construction costs.
2016-2020 CIP - increase of $894,000 due to inclusion of an additional project phase that will convert and configure the hardware for 18 distributed control unit controllers.
2017-2021 CIP - increase of $1.6 million due to revised cost estimate.
2019-2023 CIP - increase of $2.8 million due to revised cost estimate.
2020-2024 CIP - increase of $1.9 million due to an increase in the number of components impacted and updated agreement estimate.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design	320									320
Construction	4,181	6,312	745					745		11,238
Total	**4,501**	**6,312**	**745**					**745**		**11,558**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	4,501	6,312	745					745		11,558
Total	**4,501**	**6,312**	**745**					**745**		**11,558**
Annual Operating Budget Impact (000s)										
Total										

Various Infrastructure Decommissioning

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2018
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	2nd Qtr. 2022
Department	Environmental Services	**Revised Start Date**	3rd Qtr. 2020
Location	Water Pollution Control Plant	**Revised End Date**	2nd Qtr. 2024
Council Districts	4	**Initial Project Budget**	$22,220,000
Appropriation	A410S	**FY Initiated**	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	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Design			469	2,560				3,029		3,029
Bid & Award				30				30		30
Construction					18,470	628		19,098		19,098
Post Construction						63		63		63
Total			**469**	**2,590**	**18,470**	**691**		**22,220**		**22,220**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)			469	2,590	18,470	691		22,220		22,220
Total			**469**	**2,590**	**18,470**	**691**		**22,220**		**22,220**
Annual Operating Budget Impact (000s)										
Total										

Yard Piping and Road Improvements

CSA	Environmental and Utility Services	**Initial Start Date**	3rd Qtr. 2011
CSA Outcome	Reliable Utility Infrastructure	**Initial End Date**	4th Qtr. 2026
Department	Environmental Services	**Revised Start Date**	
Location	Water Pollution Control Plant	**Revised End Date**	1st Qtr. 2028
Council Districts	4	**Initial Project Budget**	N/A
Appropriation	A7396	**FY Initiated**	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 also make roadway and drainage-related improvements throughout the Plant's main operations and residual management areas.

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.

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
Project Feasibility Development	2,131	1,597	1,137	2,791	2,974	357		7,259		10,987
Design	742	419	250	1,443	3,437	3,404		8,534		9,695
Bid & Award	60	824		153	365	362		880		1,764
Construction	943	6,262	11,791	12,585	30,640	31,243	1,532	87,791	2,887	97,883
Post Construction	1	27	141		143	341	338	963		991
Total	**3,877**	**9,129**	**13,319**	**16,972**	**37,559**	**35,707**	**1,870**	**105,427**	**2,887**	**121,319**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	3,877	9,129	13,319	16,972	37,559	35,707	1,870	105,427	2,887	121,319
Total	**3,877**	**9,129**	**13,319**	**16,972**	**37,559**	**35,707**	**1,870**	**105,427**	**2,887**	**121,319**
Annual Operating Budget Impact (000s)										
Total										

Owner Controlled Insurance Program

CSA Environmental and Utility Services
CSA Outcome Reliable Utility Infrastructure
Department Environmental Services
Council Districts N/A
Appropriation A401B

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

Notes

	PRIOR YEARS	FY20 EST	FY21	FY22	FY23	FY24	FY25	5 YEAR TOTAL	BEYOND 5 YEARS	PROJECT TOTAL
Expenditure Schedule (000s)										
General Administration	3,104	5,290	4,839	3,705	1,399	1,264		11,207		19,601
Construction	1,346									1,346
Total	**4,450**	**5,290**	**4,839**	**3,705**	**1,399**	**1,264**		**11,207**		**20,947**
Funding Source Schedule (000s)										
San José-Santa Clara Treatment Plant Capital Fund (512)	4,450	5,290	4,839	3,705	1,399	1,264		11,207		20,947
Total	**4,450**	**5,290**	**4,839**	**3,705**	**1,399**	**1,264**		**11,207**		**20,947**

Summary of Projects that Start After 2020-2021

Project Name	Additional Digester Upgrades	**Initial Start Date**	3rd Qtr. 2021
5-Yr CIP Budget	$ 62,096,000	**Initial End Date**	2nd Qtr. 2028
Total Budget	$ 64,475,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	4th Qtr. 2027

Description This project will rehabilitate up to six existing anaerobic digesters, including installation of new covers and mixers, upgrades the existing sludge distribution piping, and upgrades 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).

Project Name	Secondary Clarifier Rehabilitation	**Initial Start Date**	1st Qtr. 2017
5-Yr CIP Budget	$ 3,398,000	**Initial End Date**	2nd Qtr. 2024
Total Budget	$ 26,455,000	**Revised Start Date**	3rd Qtr. 2023
Council Districts	4	**Revised End Date**	4th Qtr. 2031

Description 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.

Summary of Reserves

Project Name	Equipment Replacement Reserve	**Initial Start Date**	N/A
5-Yr CIP Budget	$ 5,000,000	**Initial End Date**	N/A
Total Budget	$ 5,000,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	
Description	This reserve sets aside funding for unforeseen replacement and rehabilitation of equipment that, due to age, wear, or obsolescence, must be replaced for the efficient operation of the Plant.		

Project Name	Hydraulic Capacity Enhancements Reserve	**Initial Start Date**	N/A
5-Yr CIP Budget	$ 3,666,000	**Initial End Date**	N/A
Total Budget	$ 3,666,000	**Revised Start Date**	
Council Districts	4	**Revised End Date**	
Description	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.		

Attachment A - Operating Budget Impact

	2021-2022	2022-2023	2023-2024	2024-2025
Water Pollution Capital Program				
New Headworks		$9,000	$26,000	$27,000
Digested Sludge Dewatering Facility		$3,062,000	$12,251,000	$12,599,000
Digester and Thickener Facilities Upgrade	$2,123,000	$2,203,000	$2,285,000	$2,370,000
Total Water Pollution Capital Program	**$2,123,000**	**$5,274,000**	**$14,562,000**	**$14,996,000**

Explanation of Funds

Revenues and expenditures for the operation and maintenance of the San José-Santa Clara Water Pollution Control Plant (Plant) 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 tributary agencies of the San José-Santa Clara Water Pollution Control Plant 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 Plant.

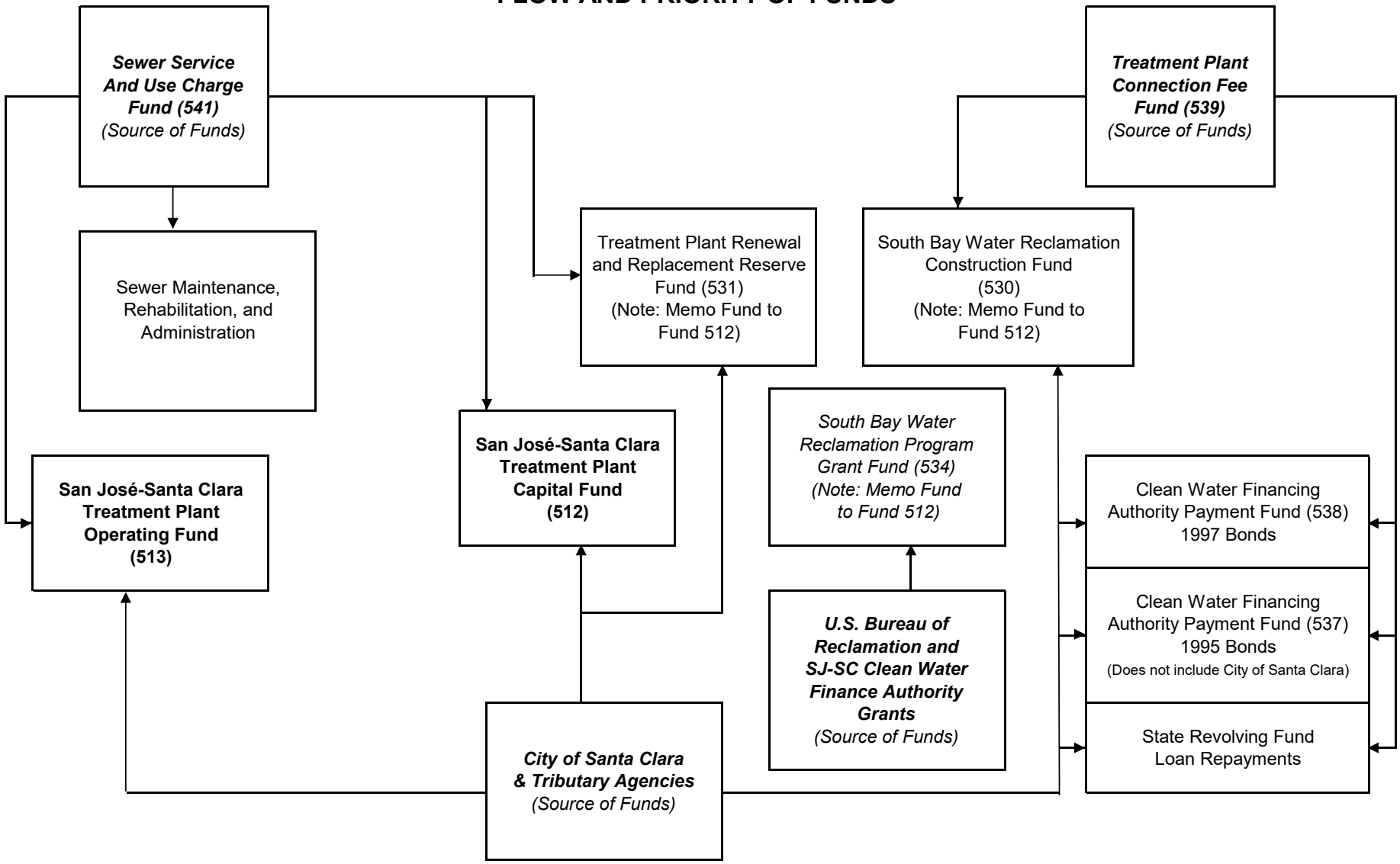
The San José Sewer Service and Use Charge Fund was established in the San José Municipal Code Section 15.12.640 in August 1959. This fund is the depository of revenues from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system. A portion 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 Plant.

The Santa Clara Sewer Revenue Fund was established by Resolution Number 916 of the City Council of Santa Clara in October 1960. Like the City of San José, revenues from this fund are transferred directly to the Operating and Capital Funds.

The Capital Fund provides all monies used for capital projects. Included in this fund is the Treatment Plant Renewal and Replacement Fund. This fund was established to satisfy the Plant's federal and State grant agreements as well as to comply with bond covenants.

The South Bay Water Recycling (SBWR) Capital Fund provides monies for capital improvement projects in support of SBWR system infrastructure.

WATER POLLUTION CONTROL PLANT
FLOW AND PRIORITY OF FUNDS



The arrows indicate the flow of funds from each of the various sources to the fund in which the revenues are expended.