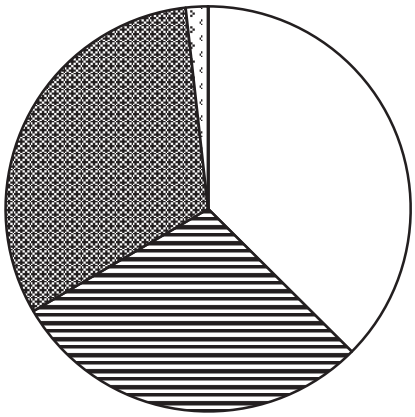
2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

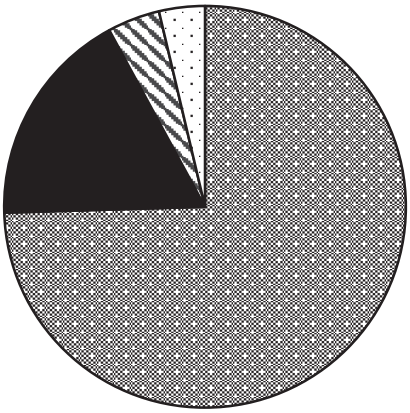
WATER POLLUTION CONTROL
2017-2021 Capital Improvement Program

2016-2017 Proposed Source of Funds



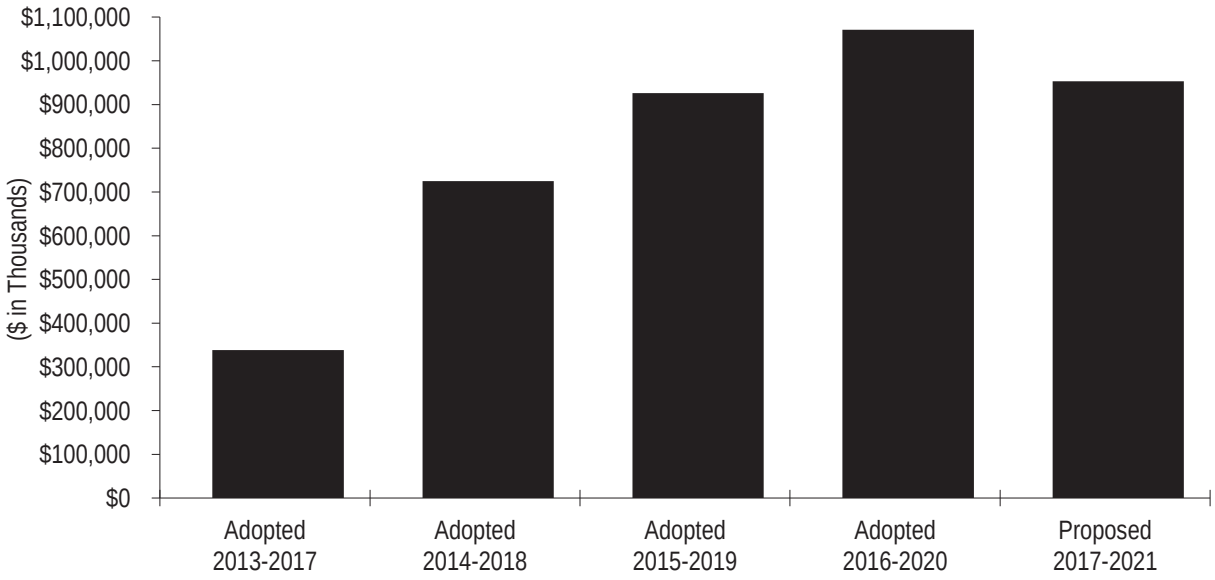
- Beginning Fund Balance
- Other Government Agencies
- Transfers
- Interest and Miscellaneous

2016-2017 Proposed Use of Funds



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

CIP History



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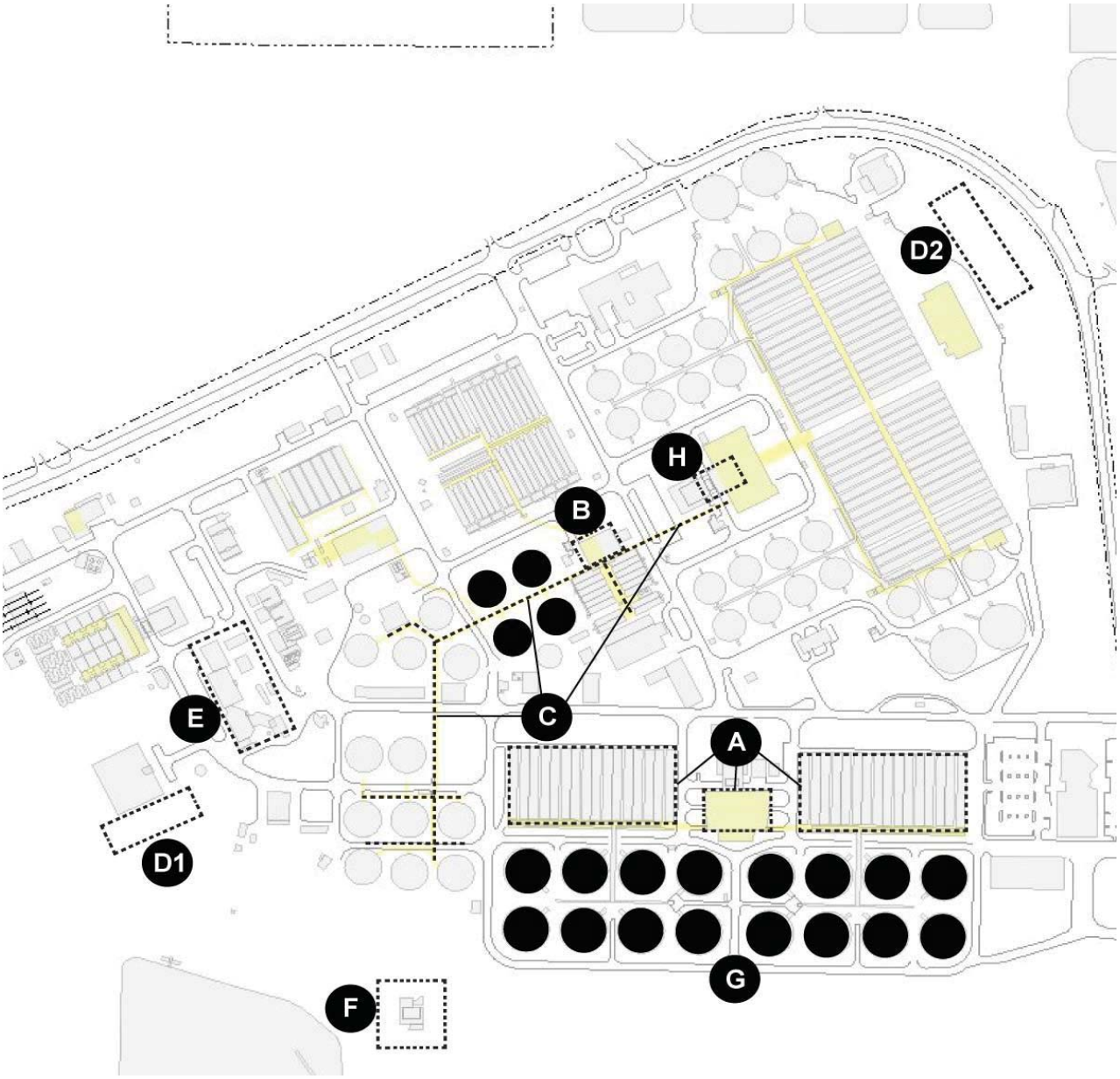
Water Pollution Control

2017-2021 Proposed Capital Improvement Program*

Major Projects

A) Aeration Tanks and Blower Rehabilitation
B) Combined Heat and Power Equipment Repair and Rehabilitation (Digester Gas Compressor Upgrades)
C) Digester and Thickener Facilities Upgrade
D) Energy Generation Improvements
1. Emergency Diesel Generators
2. Cogeneration Facility

E) Headworks Improvements and New Headworks
F) Iron Salt Feed Station
G) Nitrification Clarifier Rehabilitation
H) Plant Instrument Air System Upgrade



* 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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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)	96
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	50,000
AVERAGE MEGAWATTS PRODUCED	9.8

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 2017-2021 Proposed Capital Improvement Program (CIP) provides funding of $953.3 million, of which $122.6 million is allocated in 2016-2017. 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 2017-2021 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 Plant in compliance with all applicable local, state, and federal regulatory requirements.

PROGRAM PRIORITIES AND OBJECTIVES

The development of this 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 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. Over a four month period, from late October 2013 through February 2014, the MWH team, along with City staff, completed a project validation process that consisted of a detailed review of the PMP goals and objectives; developed criteria and associated weighting factors for purposes of evaluating and prioritizing the PMP projects; reviewed and prioritized the PMP projects along with gap projects identified through discussions with Operations and Maintenance staff; bundled related projects into 33 project packages to promote design and construction procurement efficiency as well as to keep the number of contractors working onsite at a manageable level; evaluated potential project delivery methods and identified a default method of delivery for each project package; and developed updated cost estimates and cost-loaded schedules for each project package taking into account predecessor projects and dependencies, construction sequencing, and escalation. The projects included with this Proposed CIP are based on the outcome of the project validation process.

Program priorities for the near term include: continuing to pursue low-cost Clean Water State Revolving Funds (SRF) for all eligible projects and building reserves in anticipation of issuing long-term revenue bonds (San José only); prioritizing and programming projects based on criticality and available project delivery staff resources; and actively managing project risks and variables to inform timing and amount of major encumbrances. In addition, as several large projects are set to move from the design phase into construction, a key priority will be to obtain brokerage services and establish an Owner Controlled Insurance Program (OCIP) for the RWF projects, as well as obtaining third-party construction management and specialty inspection services to supplement City staff.

PROGRAM PRIORITIES AND OBJECTIVES

Program Funding Strategy: Since early 2014, staff has been 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 City Council on January 12, 2016. The staff reports are available online.[1]

The prior CIP assumed that all agencies would participate in short-term financing (i.e. commercial paper program) and SRF loans. Although the tributary agencies expressed initial interest in short-term financing and the SRF, to date, they have not provided the interim commitments required through execution of the Amended and Restated Master Agreement by February 1, 2016. As a result, San José and Santa Clara are continuing the SRF loan application process for the Digester and Thickener Facilities Upgrade Project (loan application approval is expected in spring 2016) and will adjust the loan amount based on the number of agencies that commit to repayment of the loan at the time of the final loan approval. Staff will continue to pursue SRF loans for all eligible projects, either for the co-owners or for all agencies, based on future commitments from the tributary agencies. However, it should be noted that state-wide interest and competition for these low-cost loans have increased significantly and funding for all projects is not guaranteed; therefore, staff is developing a plan to obtain long-term bond financing for San José. The City plans to gradually build required operating reserves in anticipation of securing long-term bonds independently. The 2017-2021 Proposed CIP assumes the need to issue bonds in 2017-2018. The timing and amount of the issuance will depend upon the approval and availability of SRF funding. The City will also continue to evaluate a short-term financing program, such as a commercial paper program, to provide supplemental financing flexibility.

Program/Project Delivery Variables: Building on the program start-up activities, which concluded in June 2014, the program team will continue 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.

On the project delivery front, it is important to recognize that many projects in the Proposed CIP are in the early feasibility/development phase and thus do not yet have detailed scope, budget, or schedule information. Those elements will continue to be refined 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 counteract factors that can impact project delivery schedule and cost (e.g., changes in project delivery staffing resources, long lead time items for major

[1] June 2, 2015 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=732&meta_id=516433
January 12, 2016 Memo: http://sanjose.granicus.com/MetaViewer.php?view_id=&event_id=2118&meta_id=550326

PROGRAM PRIORITIES AND OBJECTIVES

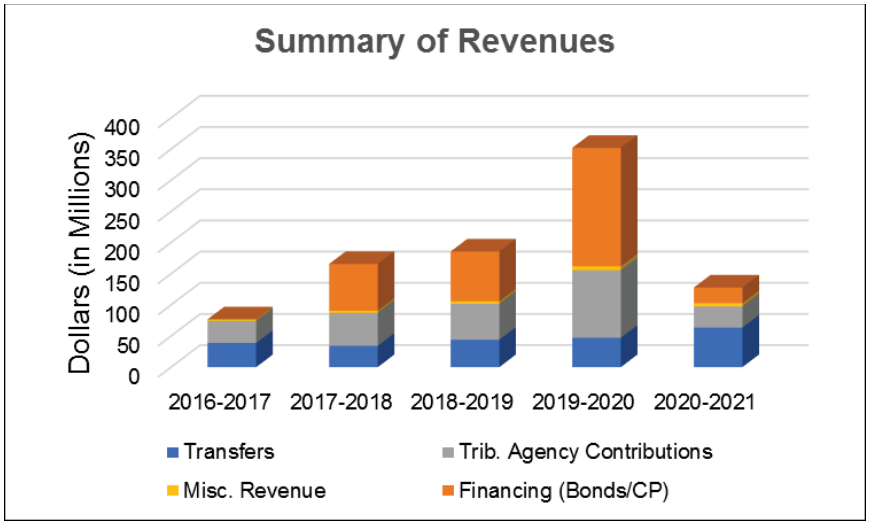
equipment, project delivery approach, construction phasing approach, external permit reviews and approvals, and construction bidding climate).

Construction Program Planning: Successful delivery of this large, multi-disciplinary CIP requires an integrated team of City staff, outside consultants, and contractors. Over the past few fiscal years, the program team has worked on identifying resource needs and securing a combination of City staff and consultants to deliver the program. The program team is currently supported by City staff from Environmental Services, Public Works, Planning, Finance, and the City Attorney's Office, as well as staff from MWH Americas, Inc.

As several large projects will be entering into the construction phase with this CIP, emphasis will be placed on putting a robust construction management plan in place, including obtaining brokerage services and establishing an Owner Controlled Insurance Program (OCIP), implementing a construction document management system, and obtaining third-party construction management and additional specialty inspection services to supplement City staff. The program will also continue to draw from the professional consultant and contractor community for subject-matter technical expertise, engineering design, and construction management services.

SOURCES OF FUNDING

Revenues for the 2017-2021 Proposed CIP are derived from several sources: transfers from the City of San José Sewer Service and Use Charge (SSUC) Fund and Sewage Treatment Plant Connection Fee Fund; contributions from the City of Santa Clara and other tributary agencies; interest earnings; Calpine Metcalf Energy Center Facilities repayments; a federal grant from the U.S. Bureau of Reclamation; and bond proceeds.



SOURCES OF FUNDING

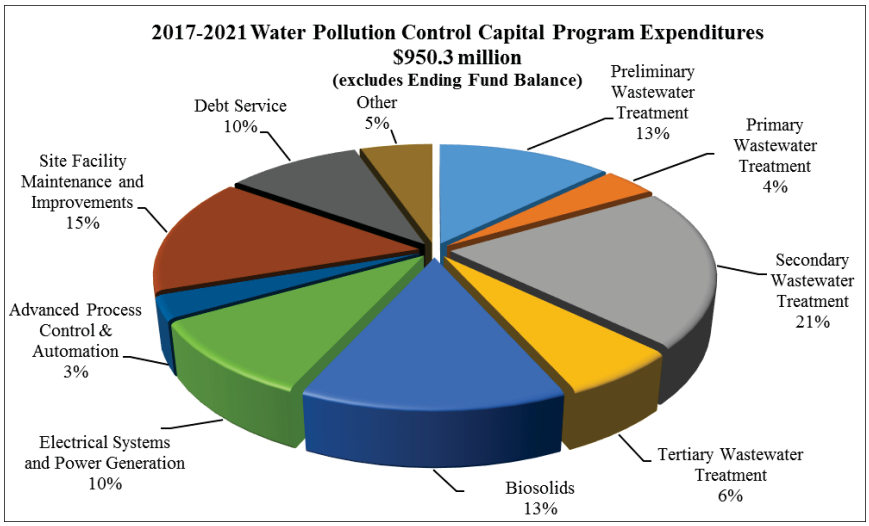
The SSUC Fund derives its revenues from fees imposed on San José users of the residential, commercial, and industrial sanitary sewer system. Transfers from this fund to the Plant CIP over the five years total $220.0 million, which reflects a $26.6 million (13.8%) increase compared to the 2016-2020 Adopted CIP, due to the increase in the fifth year contribution and the new debt repayment.

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 Proposed CIP, contributions from the City of Santa Clara and other agencies total $288.4 million, which represents an $85.1 million (41.8%) increase compared to the 2016-2020 Adopted CIP, due primarily to the assumption included in this CIP that all tributary agencies will not participate in short- or long-term financing (though agencies may independently secure short- or long-term financing).

To accommodate project costs for San José, a bond issuance totaling $370.0 million is programmed in this CIP. Debt service on the bonds is estimated to be approximately $4.3 million in 2017-2018, rising to approximately $11.2 million in 2018-2019, $15.7 million in 2019-2020, and $22.0 million in 2020-2021, reflecting the amortization of the interest and principal loan amount. The estimated size of the issuance and the related debt service are scheduled to cover project costs programmed in the 2017-2021 Proposed CIP while avoiding large rate increases that would be required to fund the PMP in a "pay-as-you-go" scenario. Additional bond issuances may be needed to fund project costs beyond the Proposed CIP. Staff is currently pursuing SRF funding for some projects; however, due to uncertainty of the availability of this funding; it has not been factored into the CIP as a source of funding. If the City is successful in obtaining SRF funding, the debt service in 2017-2018 could be eliminated.

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.



Digester and Thickener Facilities Upgrade

The Plant currently processes biosolids material through a combination of anaerobic digestion, lagoon storage, and air drying. The Plant has 16 anaerobic digesters of varying ages constructed between 1956 and 1983. Of the 16 digesters installed, six are currently out of service due to structural damage or other mechanical failures. The remaining ten digesters are operational but are near the end of their useful life. The digesters receive primary sludge (i.e. solids) from the primary clarifiers and thickened waste activated sludge from the Dissolved Air Flotation Tanks (DAFTs). Sludge is retained in the digester tanks for up to 30 days to allow the digestion process to reduce volatile solids and destroy pathogens.

The digested sludge is then pumped and stored in open air storage lagoons (a three-year process) and drying beds (a six-month process) for further stabilization and conversion to high-quality Class A biosolids. The dried biosolids are eventually trucked to the nearby Newby Island landfill for use as alternate daily cover.

The original anaerobic digestion process was designed to operate under mesophilic conditions to produce Class B biosolids in accordance with U.S. Environmental Protection Agency (USEPA) Title 40 Part 503. During a Biosolids Study Session, held in April 2014, TPAC requested that staff explore the possibility of producing Class A biosolids instead of Class B biosolids, including impacts on operation and maintenance costs. The study was completed and determined that Class A biosolids

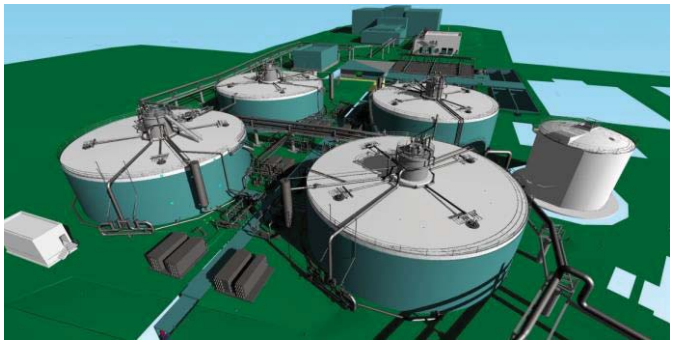
PROGRAM HIGHLIGHTS

Digester and Thickener Facilities Upgrade (Cont'd.)

Existing digesters

could be achieved through modification of the current mesophilic digestion process to a two-stage thermophilic phased anaerobic digestion (TPAD) process. In comparing the various alternatives, it was determined that TPAD was a cost-effective way to provide a superior overall sludge digestion process as well as position the Plant to economically produce Class A biosolids at a future date. In November 2014, TPAC accepted staff's recommendation to proceed with TPAD configuration. In December 2014, Council approved and directed staff to proceed with the TPAD configuration.

At an estimated total cost of $147.9 million, the Digester and Thickener Facilities Upgrade project will completely rehabilitate four digesters. This project includes: new covers and mixing systems; modifications to operate as a two-phase TPAD system; structural repairs and seismic retrofits; heating system, gas collection conveyance system, and tunnel system upgrades; electrical, instrumentation, and control systems upgrades; and the retrofit of six DAFT units to allow for the co-thickening of primary and secondary sludge, including new odor control treatment. The project will also construct a new primary sludge screening facility, heat exchangers, waste biogas flare, and polymer dosing facility.



3-D rendering of rehabilitated digesters

This project is the first phase of digesters to be rehabilitated. Construction award is expected in spring 2016 as part of the 2015-2016 budget and the project is anticipated to be completed in 2019-2020. A second phase will rehabilitate an additional four to six digesters and is expected to begin in 2019-2020.

The 2017-2021 Proposed CIP allocates $13.8 million for construction management, construction contingency, and post-construction costs for the first phase of digester rehabilitation and $9.2 million for the next phase of the project.

PROGRAM HIGHLIGHTS

Cogeneration Facility

The day-to-day operation of the Plant depends heavily on having reliable energy sources and reliable, operable systems with built-in redundancy. Power generation facilities at the Plant range from 20 to over 60 years of age and are becoming increasingly unreliable. In 2012, the City completed a comprehensive study of the Plant's power generation equipment and concluded that the existing cogeneration equipment needs to be replaced in order to provide reliable and efficient on-site power and heat while reducing air emissions.

Internal combustion engines similar to the ones planned for the Cogeneration Facility

At an estimated total cost of $106.8 million, the new Cogeneration Facility will consist of new advanced generation internal combustion engines, electrical switchgear, heat recovery systems, and control and monitoring systems with connectivity to the Plant's Distributed Control System. These facilities will be housed in a new building. The new engines will replace all existing Plant cogeneration equipment, with the exception of the recently installed fuel cell. Power output from the new cogeneration engines and the existing fuel cell is expected to meet projected Plant power and heat demands through 2036.

In addition, the project scope includes a new digester gas treatment system, various appurtenances to support the engines and building, digester gas pipeline and natural gas pipeline, and civil work including parking areas and utilities (water, stormwater, and sanitary sewer lines).

This project will be funded in phases and the 2017-2021 Proposed CIP allocates $88.9 million for design, construction, contingency, project management, and transition service costs. Award of the design-build contract is expected in spring 2016, though costs for contract actions are anticipated across multiple fiscal years, and construction completion is anticipated in 2018-2019.

3-D rendering of an architectural alternative for the Cogeneration Facility

MAJOR CHANGES FROM THE 2016-2020 ADOPTED CIP

The overall size of the Water Pollution Control CIP has decreased by $117.5 million from $1.07 billion in the 2016-2020 Adopted CIP to $953.3 million in the 2017-2021 Proposed CIP. The following table outlines the most significant changes to project budgets, including new/augmented allocations and reduced/eliminated allocations.

Project Name	Incr/(Decr)
Digester and Thickener Facilities Upgrade	$41.0 million
Digested Sludge Dewatering Facility	$28.1 million
Energy Generation Improvements	$4.9 million
Filter Rehabilitation	$2.5 million
Plant Instrument Air System Upgrade	($4.2 million)
Advanced Facility Control and Meter Replacement	($5.2 million)

OPERATING BUDGET IMPACT

Several projects in this Proposed CIP are expected to introduce new operating costs to the Operating Budget. These include: Construction-Enabling Improvements, Digester and Thickener Facilities Upgrade, Energy Generation Improvements, and Iron Salt Feed Station. The operation and maintenance impacts are due to chemical costs, labor, and maintenance consumables (e.g. parts, oil).

A new Cogeneration Facility (part of the Energy Generation Improvements project) is expected to come online in spring 2019 that will introduce a new generator building, new engine generators, gas treatment system, boilers, chillers, and other ancillary equipment. In addition, a new chilled water system pump station and carbon dioxide stripper unit may be incorporated as part of the project. A more detailed analysis of current and future operating and maintenance costs will be available in fall 2016 after completion of preliminary design services (i.e. basis of design, equipment selection, and operating modes), subject to the successful award of the project design-build contract. Additionally, depending on the timing of when new facilities come online and existing facilities are decommissioned, there may be a temporary increase in operating costs due to the dual operations.

The estimated net operating impact of the Digester and Thickener Facilities Project may be adjusted in the future after additional analysis is performed to determine required staffing levels to operate and maintain the facilities. The estimate also assumes that all power and heating needs will be provided by the Cogeneration Facility.

OPERATING BUDGET IMPACT

The table below and Attachment A summarize the operating and maintenance impact to the Sewer Service and Use Charge Fund for several projects.

Net Operating Budget Impact Summary

	2017-2018	2018-2019	2019-2020	2020-2021
Construction-Enabling Improvements	$154,000	$160,000	$166,000	$173,000
Digester and Thickener Facilities Upgrade			$1,500,000	$1,560,000
Energy Generation Improvements	$79,000	$82,000	$84,000	$87,000
Iron Salt Feed Station	$755,000	$767,000	$779,000	$791,000
	$988,000	$1,009,000	$2,529,000	$2,611,000

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.

	2017-2018	2018-2019	2019-2020	2020-2021
Water Pollution Control				
Construction-Enabling Improvements	$154,000	$160,000	$166,000	$173,000
Digester and Thickener Facilities Upgrade			$1,500,000	$1,560,000
Energy Generation Improvements	$79,000	$82,000	$84,000	$87,000
Iron Salt Feed Station	$755,000	$767,000	$779,000	$791,000
Total Water Pollution Control	**$988,000**	**$1,009,000**	**$2,529,000**	**$2,611,000**

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2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Source of Funds

Use of Funds

The Source of Funds displays the capital revenues by funding source for each year of the Five-Year Capital Improvement Program. The Use of Funds displays the capital expenditures by line-item for each year of the five-year period.

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Source of Funds (Combined)

SOURCE OF FUNDS	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Beginning Fund Balance	154,817,803	45,916,493	4,517,493	3,202,493	4,337,493	3,646,493	45,916,493 *
Sale of Bonds			75,000,000	80,000,000	190,000,000	25,000,000	370,000,000
Revenue from Other Agencies:							
Federal Government							
– U.S. Bureau of Reclamation Grant	5,000,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Water Pollution Control Plant User Agencies							
– 2005 Bond Debt Repayment	1,221,000	1,070,000	165,000	155,000	155,000	155,000	1,700,000
– Equipment Replacement			580,000	580,000	580,000	580,000	2,320,000
– State Revolving Fund Loan Repayment	1,374,000	1,374,000	1,374,000	555,000			3,303,000
– WPCP Projects	25,380,000	33,022,000	50,890,000	56,282,000	107,726,000	33,191,000	281,111,000
Contributions, Loans and Transfers from:							
Special Funds							
– Transfer for 2005 Debt Service from the Sewer Service and Use Charge Fund (541)	5,722,000	5,717,000	5,716,000	5,369,000	5,372,000	5,371,000	27,545,000
– Transfer for 2017-2018 Debt Service from the Sewer Service and Use Charge Fund (541)			4,288,000	11,157,000	15,651,000	22,039,000	53,135,000
– Transfer for Capital Projects from the Sewer Service and Use Charge Fund (541)	25,000,000	30,000,000	20,000,000	25,000,000	25,000,000	35,000,000	135,000,000
– Transfer for Equipment Replacement from the Sewer Service and Use Charge Fund (541)			1,083,000	1,083,000	1,083,000	1,083,000	4,332,000

2017-2021 Proposed Capital Improvement Program

Source of Funds (Combined)

SOURCE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Contributions, Loans and Transfers from:							
Special Funds							
– Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	3,090,000	1,249,000			7,429,000
Interest Income	1,272,000	1,785,000	2,728,000	3,522,000	5,625,000	4,668,000	18,328,000
Miscellaneous Revenue							
– Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
Reserve for Encumbrances	51,139,690						
Total San José-Santa Clara Treatment Plant Capital Fund	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493** *
TOTAL SOURCE OF FUNDS	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493** *

* The 2017-2018 through 2020-2021 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Public Art							
Public Art	886,000	360,000	726,000	27,000	1,634,000	73,000	2,820,000
Total Public Art	**886,000**	**360,000**	**726,000**	**27,000**	**1,634,000**	**73,000**	**2,820,000**
Preliminary Wastewater Treatment							
1. Headworks Improvements	1,663,000	3,085,000	1,404,000	23,333,000	404,000	301,000	28,527,000
2. New Headworks	1,978,000	2,725,000	7,595,000	773,000	81,200,000	317,000	92,610,000
Total Preliminary Wastewater Treatment	**3,641,000**	**5,810,000**	**8,999,000**	**24,106,000**	**81,604,000**	**618,000**	**121,137,000**
Primary Wastewater Treatment							
3. East Primary Rehabilitation, Seismic Retrofit, and Odor Control	136,000	195,000	2,296,000	10,546,000	22,176,000	686,000	35,899,000
4. Iron Salt Feed Station	7,182,000	434,000	26,000				460,000
Total Primary Wastewater Treatment	**7,318,000**	**629,000**	**2,322,000**	**10,546,000**	**22,176,000**	**686,000**	**36,359,000**
Secondary Wastewater Treatment							
Aeration Basin Future Modifications					846,000	4,274,000	5,120,000
5. Aeration Tanks and Blower Rehabilitation	1,815,000	15,717,000	19,398,000	1,718,000	78,397,000	645,000	115,875,000
6. Nitrification Clarifier Rehabilitation	1,305,000	3,773,000	583,000	44,027,000	173,000	178,000	48,734,000
7. Secondary Clarifier Rehabilitation		104,000	565,000	4,003,000	21,209,000	159,000	26,040,000
Total Secondary Wastewater Treatment	**3,120,000**	**19,594,000**	**20,546,000**	**49,748,000**	**100,625,000**	**5,256,000**	**195,769,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Tertiary Wastewater Treatment							
Final Effluent Pump Station & Stormwater Channel Improvements					902,000	5,999,000	6,901,000
New Disinfection Facilities				63,000	889,000	6,179,000	7,131,000
8. Filter Rehabilitation	1,382,000	1,395,000	5,947,000	26,464,000	806,000	139,000	34,751,000
9. Outfall Bridge and Levee Improvements	383,000	1,027,000	1,092,000	240,000	6,553,000	301,000	9,213,000
Total Tertiary Wastewater Treatment	**1,765,000**	**2,422,000**	**7,039,000**	**26,767,000**	**9,150,000**	**12,618,000**	**57,996,000**
Biosolids							
FOG Receiving					313,000	103,000	416,000
10. Digested Sludge Dewatering Facility	1,146,000	2,927,000	8,882,000	805,000	81,339,000	851,000	94,804,000
11. Digester and Thickener Facilities Upgrade	126,674,000	10,259,000	1,707,000	1,601,000	1,435,000	8,031,000	23,033,000
12. Lagoons and Drying Beds Retirement	243,000	1,358,000	112,000	2,022,000	659,000	6,645,000	10,796,000
Total Biosolids	**128,063,000**	**14,544,000**	**10,701,000**	**4,428,000**	**83,746,000**	**15,630,000**	**129,049,000**
Electrical Systems and Power Generation							
Combined Heat and Power Equipment Repair and Rehabilitation	10,719,000	120,000					120,000
Plant Electrical Reliability	2,000,000		4,426,000	188,000	282,000	30,000	4,926,000
13. Energy Generation Improvements	26,729,000	31,986,000	56,083,000	1,092,000			89,161,000
Total Electrical Systems and Power Generation	**39,448,000**	**32,106,000**	**60,509,000**	**1,280,000**	**282,000**	**30,000**	**94,207,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
Advanced Process Control & Automation							
14. Advanced Facility Control and Meter Replacement	2,148,000	2,025,000	10,859,000	5,762,000	5,017,000	916,000	24,579,000
15. Treatment Plant Distributed Control System	1,130,000	670,000	1,025,000	1,025,000	575,000		3,295,000
Total Advanced Process Control & Automation	**3,278,000**	**2,695,000**	**11,884,000**	**6,787,000**	**5,592,000**	**916,000**	**27,874,000**
Site Facility Maintenance and Improvements							
Treatment Plant Engine Rebuild	20,000						
Treatment Plant Fire Main Replacement	61,000						
Tunnel Rehabilitation	100,000		1,024,000	2,421,000	396,000	5,262,000	9,103,000
16. Construction-Enabling Improvements	3,476,000	785,000					785,000
17. Equipment Replacement	1,683,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
18. Facility Wide Water Systems Improvements	1,192,000	1,528,000	381,000	10,841,000	542,000	555,000	13,847,000
19. Plant Infrastructure Improvements	1,508,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
20. Plant Instrument Air System Upgrade	1,208,000	3,400,000	99,000				3,499,000
21. Support Building Improvements	890,000	2,300,000	3,483,000	7,952,000	15,762,000	24,588,000	54,085,000
22. Urgent and Unscheduled Treatment Plant Rehabilitation	2,394,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
23. Yard Piping and Road Improvements	327,000	1,047,000	493,000	12,689,000	1,674,000	26,352,000	42,255,000
Total Site Facility Maintenance and Improvements	**12,859,000**	**13,223,000**	**9,643,000**	**38,066,000**	**22,537,000**	**60,920,000**	**144,389,000**

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Construction Projects							
South Bay Water Recycling							
SBWR Extension	3,780,000						
SBWR Reservoir Facility	90,000						
SBWR System Reliability and Infrastructure Replacement	34,000						
Total South Bay Water Recycling	**3,904,000**						
Total Construction Projects	**204,282,000**	**91,383,000**	**132,369,000**	**161,755,000**	**327,346,000**	**96,747,000**	**809,600,000**
Non-Construction							
General Non-Construction							
Capital Program and Public Works Department Support Service Costs	789,000	856,000	899,000	851,000	868,000	885,000	4,359,000
Master Plan Updates			3,000,000				3,000,000
Plant Master Plan	2,000						
SBWR Master Plan	6,000						
SBWR Recycling Master Plan Reimbursement	20,000						
Transfer to Clean Water Financing Authority Debt Service 2017-2018			4,288,000	11,157,000	15,651,000	22,039,000	53,135,000
Transfer to the Clean Water Financing Authority Debt Service Payment Fund	6,943,000	6,788,000	5,881,000	5,524,000	5,527,000	5,526,000	29,246,000
24. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
25. Preliminary Engineering	1,565,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
26. Program Management	10,247,000	8,175,000	1,945,000	2,005,000	1,770,000	1,835,000	15,730,000
27. Record Drawings		250,000	12,839,000	162,000	162,000	164,000	13,577,000

Water Pollution Control

2017-2021 Proposed Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	5-Year Total
Non-Construction							
General Non-Construction							
28. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	1,804,000			10,732,000
Total General Non-Construction	**24,041,000**	**21,538,000**	**34,321,000**	**22,508,000**	**24,983,000**	**31,454,000**	**134,804,000**
Contributions, Loans and Transfers to General Fund							
Transfer to the General Fund - Human Resources/Payroll/ Budget Systems Upgrade	21,000	3,000					3,000
Total Contributions, Loans and Transfers to General Fund	**21,000**	**3,000**					**3,000**
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	145,000	172,000	178,000	193,000	193,000	193,000	929,000
Total Contributions, Loans and Transfers to Special Funds	**145,000**	**172,000**	**178,000**	**193,000**	**193,000**	**193,000**	**929,000**
Reserves							
Equipment Replacement Reserve		5,000,000					5,000,000
Total Reserves		**5,000,000**					**5,000,000**
Total Non-Construction	**24,207,000**	**26,713,000**	**34,499,000**	**22,701,000**	**25,176,000**	**31,647,000**	**140,736,000**
Ending Fund Balance	45,916,493	4,517,493	3,202,493	4,337,493	3,646,493	2,978,493	2,978,493*
TOTAL USE OF FUNDS	**274,405,493**	**122,613,493**	**170,070,493**	**188,793,493**	**356,168,493**	**131,372,493**	**953,314,493***

* The 2016-2017 through 2019-2020 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

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2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Detail of Construction Projects

Detail of Non-Construction Projects

The Detail of Construction Projects section provides information on the individual construction projects with funding in 2016-2017. The Detail of Non-Construction Projects section is abbreviated and provides information on the individual non-construction project, with funding in 2016-2017. On the Use of Funds statement, these projects are numbered.

1. Headworks Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2012
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2015
Revised Completion Date: 2nd Qtr. 2021

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. In addition, this project will complete a condition assessment of Headworks No. 1 (HW1) to identify equipment that may require rehabilitation. Improvements may include refurbishment of bar screens, grit classifiers, discharge valves, channel gate valves, and/or concrete.

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 so HW1 can be taken out of service for repair, which will allow it to remain in operation until a new headworks is constructed to serve as the Plant's new duty headworks.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	257	1,724	862	705					705		1,824
Design	1	429	429	266	1,090	343			1,699		2,129
Bid & Award		239	239	22	250				272		511
Construction	1	1,883	133	2,092		22,880	404	226	25,602		25,736
Post Construction					64	110		75	249		249
TOTAL	**259**	**4,275**	**1,663**	**3,085**	**1,404**	**23,333**	**404**	**301**	**28,527**		**30,449**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	259	4,275	1,663	3,085	1,404	23,333	404	301	28,527		30,449
TOTAL	**259**	**4,275**	**1,663**	**3,085**	**1,404**	**23,333**	**404**	**301**	**28,527**		**30,449**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 1, 2, and 7 and Validation Project PLH-01. Prior to 2015-2019, this project was titled "Headworks No. 1 Repair and Rehabilitation". The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2012-2013
Initial Project Budget: $5,975,000
Appn. #: 7448
USGBC LEED: N/A

2. New Headworks

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2012
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2013
Revised Completion Date: 3rd Qtr. 2022

Description: This project will construct a new headworks to serve as the Plant's duty headworks. It also involves potentially increasing the equalization basin volume and installing lining and spraydown systems to facilitate cleaning. The project will also be tasked with odor control over select areas, such as junction boxes and grit collection. The new headworks system will consider coordination with the Headworks 2 hydraulics and simplification of the existing hydraulics and piping considering 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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	813	3,221	1,168	2,464					2,464		4,445
Design		471	471	261	7,238	773	303		8,575		9,046
Bid & Award		339	339		357				357		696
Construction							80,676	317	80,993	318	81,311
Post Construction							221		221	79	300
TOTAL	**813**	**4,031**	**1,978**	**2,725**	**7,595**	**773**	**81,200**	**317**	**92,610**	**397**	**95,798**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	813	4,031	1,978	2,725	7,595	773	81,200	317	92,610	397	95,798
TOTAL	**813**	**4,031**	**1,978**	**2,725**	**7,595**	**773**	**81,200**	**317**	**92,610**	**397**	**95,798**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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 estimate.

Notes:

This project corresponds to Plant Master Plan Project Nos. 1, 3, 4, 5, and 8 and Validation Project PLH-02. Prior to 2015-2019, this project was titled "Headworks No. 2 Expansion". The schedule was revised during the 2015-2019 project validation process. This project will have close-out costs only in 2022-2023.

FY Initiated: 2012-2013
Initial Project Budget: $79,400,000
Appn. #: 7449
USGBC LEED: N/A

3. East Primary Rehabilitation, Seismic Retrofit, and Odor Control

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2009
Revised Start Date: 3rd Qtr. 2010
Initial Completion Date: 4th Qtr. 2012
Revised Completion Date: 2nd Qtr. 2026

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	30	136	136	195	2,296	25			2,516		2,682
Design						9,386	1,211		10,597		10,597
Bid & Award						138	70		208		208
Construction						997	20,895	686	22,578	75,977	98,555
Post Construction										1,167	1,167
TOTAL	**30**	**136**	**136**	**195**	**2,296**	**10,546**	**22,176**	**686**	**35,899**	**77,144**	**113,209**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	30	136	136	195	2,296	10,546	22,176	686	35,899	77,144	113,209
TOTAL	**30**	**136**	**136**	**195**	**2,296**	**10,546**	**22,176**	**686**	**35,899**	**77,144**	**113,209**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - increase of $80.1 million; $16.626 million due to increase of scope to incorporate master planning recommendations for seismic upgrades and odor control measures; $63.52 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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 9, 10, and 11 and Validation Project PLP-02. The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2010-2011
Initial Project Budget: $3,605,000
Appn. #: 7226
USGBC LEED: N/A

4. Iron Salt Feed Station

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2010
Revised Start Date: 1st Qtr. 2012
Initial Completion Date: 2nd Qtr. 2012
Revised Completion Date: 3rd Qtr. 2017

Description: This project constructs a permanent ferric chloride feed station and a polymer feed station, including chemical storage tanks, pumps, concrete containment structures, ancillary equipment, piping, electrical, instrumentation and control to deliver chemical solution to incoming wastewater.

Justification: The addition of ferric chloride and polymer to incoming wastewater will improve facility operation by reducing hydrogen sulfide levels in digester gas, enhancing the sludge settling in the primary clarifiers, minimizing corrosion, lowering odor levels, reducing energy usage in the secondary treatment system, and increasing feedstock to digesters, which will increase biogas production.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	100	15	15								115
Design	1,015	267	115								1,130
Bid & Award		38	38								38
Construction	47	7,014	7,014	394					394		7,455
Post Construction				40	26				66		66
TOTAL	**1,162**	**7,334**	**7,182**	**434**	**26**				**460**		**8,804**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,162	7,334	7,182	434	26				460		8,804
TOTAL	**1,162**	**7,334**	**7,182**	**434**	**26**				**460**		**8,804**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Cost Offset	(668)	(676)	(683)	(691)
Maintenance	8	8	8	8
Operating	1,415	1,435	1,454	1,474
TOTAL	**755**	**767**	**779**	**791**

Major Changes in Project Cost:

2014-2018 CIP - decrease of $347,000 due to scope revision.
2015-2019 CIP - increase of $3.3 million due to revised project validation cost estimate.
2016-2020 CIP - increase of $1.9 million due to revised scope and cost estimate.
2017-2021 CIP - increase of $1.6 million due to higher than projected construction costs.

Notes:

This project corresponds to Plant Master Plan Project No. 14 and Validation Project PLP-01.

FY Initiated: 2010-2011
Initial Project Budget: $2,340,000
Appn. #: 7230
USGBC LEED: N/A

5. Aeration Tanks and Blower Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2015
Revised Start Date:
Initial Completion Date: 3rd Qtr. 2025
Revised Completion Date: 1st Qtr. 2024

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. A condition assessment study and process conversion analysis will be completed to inform the ultimate project scope.

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	49	1,815	1,815	1,061	282				1,343		3,207
Design				2,611	7,624	791			11,026		11,026
Bid & Award				45	125	56			226		226
Construction				12,000	11,235	726	77,815	645	102,421	1,509	103,930
Post Construction					132	145	582		859	51	910
TOTAL	**49**	**1,815**	**1,815**	**15,717**	**19,398**	**1,718**	**78,397**	**645**	**115,875**	**1,560**	**119,299**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	49	1,815	1,815	15,717	19,398	1,718	78,397	645	115,875	1,560	119,299
TOTAL	**49**	**1,815**	**1,815**	**15,717**	**19,398**	**1,718**	**78,397**	**645**	**115,875**	**1,560**	**119,299**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
2016-2020 CIP - increase of $4.4 million due to escalation of construction costs.

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

FY Initiated: 2014-2015
Initial Project Budget: $114,880,000
Appn. #: 7677
USGBC LEED: N/A

6. Nitrification Clarifier Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2009
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2024
Revised Completion Date: 4th Qtr. 2022

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,302	1,359	1,305	973					973		3,580
Design	18			2,750	529				3,279		3,297
Bid & Award				50	54	34			138		138
Construction						43,993	173	178	44,344	183	44,527
Post Construction										88	88
TOTAL	**1,320**	**1,359**	**1,305**	**3,773**	**583**	**44,027**	**173**	**178**	**48,734**	**271**	**51,630**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,320	1,359	1,305	3,773	583	44,027	173	178	48,734	271	51,630
TOTAL	**1,320**	**1,359**	**1,305**	**3,773**	**583**	**44,027**	**173**	**178**	**48,734**	**271**	**51,630**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 21 and Validation Project PLS-02. This project is planned to be completed in multiple phases. Prior to 2016-2020, this project was titled "Secondary and Nitrification Clarifier Rehabilitation".

FY Initiated: 2009-2010
Initial Project Budget: $26,701,000
Appn. #: 7074
USGBC LEED: N/A

7. Secondary Clarifier Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2017
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2024
Revised Completion Date:

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.

Justification: The Plant's 26 secondary clarifiers have been in service for 30 to 50 years depending on the year of construction. A condition assessment study, completed in 2012, recommended phased rehabilitation of the secondary 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. The study also recommended the replacement of central effluent launders with a new peripheral launders to improve clarifier performance and efficiency. The pilot is needed to confirm modeling results before converting the remaining 25 clarifiers to new peripheral launders.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development				104	565	19			688		688
Design						2,773			2,773		2,773
Bid & Award						41	14		55		55
Construction						1,017	21,195	159	22,371	404	22,775
Post Construction						153			153	115	268
TOTAL				**104**	**565**	**4,003**	**21,209**	**159**	**26,040**	**519**	**26,559**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund				104	565	4,003	21,209	159	26,040	519	26,559
TOTAL				**104**	**565**	**4,003**	**21,209**	**159**	**26,040**	**519**	**26,559**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

This project corresponds to Plant Master Plan Project No. 22 and 23 and Validation Project PLS-04. This project is planned to be completed in multiple phases.

FY Initiated: 2016-2017
Initial Project Budget: $26,559,000
Appn. #:
USGBC LEED: N/A

8. Filter Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2011
Revised Start Date: 3rd Qtr. 2013
Initial Completion Date: 2nd Qtr. 2013
Revised Completion Date: 4th Qtr. 2022

Description: This project will replace filter media and potentially underdrain systems for all filters. It will also include valve replacements, electrical control replacements, air scouring equipment and piping additions, and concrete repairs. The extent of rehabilitation will depend on the results of a detailed condition assessment, which will determine whether to fully refurbish the filter facility or keep it operational until a new filter complex is built. If an evaluation of different filtration technologies from what the Plant currently uses is triggered, pilot testing and verification of an alternative filtration technology will be included in the project.

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 potentially interim improvements are needed to ensure continued regulatory compliance and operational reliability. In addition, pilot testing may be needed to determine the most suitable technology for the Plant's long-term tertiary treatment needs.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	117	1,381	1,366	1,395					1,395		2,878
Design	124	16	16		2,972	50			3,022		3,162
Bid & Award	2				75	59			134		136
Construction	226				2,900	26,305	806	139	30,150	86	30,462
Post Construction	1					50			50	9	60
TOTAL	**470**	**1,397**	**1,382**	**1,395**	**5,947**	**26,464**	**806**	**139**	**34,751**	**95**	**36,698**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	470	1,397	1,382	1,395	5,947	26,464	806	139	34,751	95	36,698
TOTAL	**470**	**1,397**	**1,382**	**1,395**	**5,947**	**26,464**	**806**	**139**	**34,751**	**95**	**36,698**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 31, 32, and 33 as well as Validation Project PLF-01 and PLF-02. Prior to 2015-2019, this project was titled “Filter Improvements”. The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2010-2011
Initial Project Budget: $3,506,000
Appn. #: 7227
USGBC LEED: N/A

9. Outfall Bridge and Levee Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2014
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2019
Revised Completion Date: 3rd Qtr. 2022

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	59	1,207	383	1,027					1,027		1,469
Design	2				882	240	108		1,230		1,232
Bid & Award					30		82		112		112
Construction					180		6,363	301	6,844	57	6,901
Post Construction										118	118
TOTAL	**61**	**1,207**	**383**	**1,027**	**1,092**	**240**	**6,553**	**301**	**9,213**	**175**	**9,832**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	61	1,207	383	1,027	1,092	240	6,553	301	9,213	175	9,832
TOTAL	**61**	**1,207**	**383**	**1,027**	**1,092**	**240**	**6,553**	**301**	**9,213**	**175**	**9,832**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
2016-2020 CIP - increase of $1.7 million due to escalation of construction costs.

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

FY Initiated: 2014-2015
Initial Project Budget: $8,120,000
Appn. #: 7678
USGBC LEED: N/A

10. Digested Sludge Dewatering Facility

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2012
Revised Start Date: 2nd Qtr. 2014
Initial Completion Date: 2nd Qtr. 2013
Revised Completion Date: 1st Qtr. 2023

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,662	2,027	1,146	2,570					2,570		5,378
Design	10				8,534	805	263		9,602		9,612
Bid & Award				357	348				705		705
Construction							81,076	851	81,927	502	82,429
Post Construction										898	898
TOTAL	**1,672**	**2,027**	**1,146**	**2,927**	**8,882**	**805**	**81,339**	**851**	**94,804**	**1,400**	**99,022**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,672	2,027	1,146	2,927	8,882	805	81,339	851	94,804	1,400	99,022
TOTAL	**1,672**	**2,027**	**1,146**	**2,927**	**8,882**	**805**	**81,339**	**851**	**94,804**	**1,400**	**99,022**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 44, 54, 57-60, and 64 and Validation Project PS-03. Prior to 2015-2019, this project was titled "New Biosolids Facility". The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2012-2013
Initial Project Budget: $1,000,000
Appn. #: 7452
USGBC LEED: N/A

11. Digester and Thickener Facilities Upgrade

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2006
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2008
Revised Completion Date: 4th Qtr. 2025

Description: This project will rehabilitate up to ten anaerobic digesters through a phased approach. This first phase 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 co-thickening of primary and secondary sludge, pressure saturation tanks, pipes, pumps, and ancillary equipment. A new odor control system, primary sludge screening facility, heat exchangers, waste biogas flare, and polymer dosing facility will be constructed. The digester gas conveyance and tunnel systems will also be upgraded.

Justification: The Plant has 16 anaerobic digesters constructed between 1956 and 1983. This project will restore digester capacity and improve reliability and safety of the gas conveyance system to ensure reliable operation of the digestion process. The upgrade to TPAD will also provide flexibility to respond to any future changes in regulation that may require the facility to produce Class A biosolids.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	730	59	8				1,191	389	1,580		2,318
Design	7,466	8,750	8,662					4,816	4,816	1,570	22,514
Bid & Award	1	168	168					83	83	34	286
Construction	1	89,391	117,836	10,259	1,707	1,322		2,378	15,666	53,375	186,878
Post Construction						279	244	365	888	274	1,162
TOTAL	**8,198**	**98,368**	**126,674**	**10,259**	**1,707**	**1,601**	**1,435**	**8,031**	**23,033**	**55,253**	**213,158**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	8,198	98,368	126,674	10,259	1,707	1,601	1,435	8,031	23,033	55,253	213,158
TOTAL	**8,198**	**98,368**	**126,674**	**10,259**	**1,707**	**1,601**	**1,435**	**8,031**	**23,033**	**55,253**	**213,158**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance	300	312
Operating	1,200	1,248
TOTAL	**1,500**	**1,560**

Major Changes in Project Cost:

2008-2012 CIP through 2014-2018 CIP - increase of 121.5M due to increased scope and realignment of project. 2015-2019 CIP - increase of $18.3M due to revised project validation cost estimate. 2016-2020 CIP - increase of $31.4M due to conversion to thermophilic digestion and inclusion of scope from other projects. 2017-2021 CIP - increase of $41.0M: $19.0M due to revised cost estimates and $22.0M due to bids that came in higher than projected construction costs.

Notes:

This project corresponds to Plant Master Plan Project Nos. 45 -53 and Validation Project PS-01. This project is planned to be completed in two phases. Prior to 2015-2019, this project was titled “Digester Rehabilitation".

FY Initiated: 2006-2007
Initial Project Budget: $1,000,000
Appn. #: 4127
USGBC LEED: N/A

12. Lagoons and Drying Beds Retirement

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2016
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2028
Revised Completion Date:

Description: This project will decommission the use of the existing sludge storage lagoons and open-air solar drying beds for post digestion processing through a phased approach. It involves successively turning over and emptying the existing lagoons of their biosolids contents in coordination with commissioning of the new biosolids dewatering facility. The project does not address follow up earthwork or rehabilitation needs to prepare the site for future development.

Justification: The adopted Plant Master Plan recommends consolidating the Plant's operational area including reducing the biosolids process footprint. This project responds to this recommendation. It also provides for more flexibility in biosolids disposal options in anticipation of the potential Newby Island landfill closure in 2025, responds to more stringent regulations for landfilling and alternative daily cover, and addresses odor, noise, and aesthetics concerns from the operations of the lagoons and sludge drying beds.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		443	243	1,358	112	111			1,581		1,824
Design						1,363	649	182	2,194		2,194
Bid & Award						42	10	12	64		64
Construction						298		6,451	6,749	23,187	29,936
Post Construction						208			208	156	364
TOTAL		**443**	**243**	**1,358**	**112**	**2,022**	**659**	**6,645**	**10,796**	**23,343**	**34,382**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		443	243	1,358	112	2,022	659	6,645	10,796	23,343	34,382
TOTAL		**443**	**243**	**1,358**	**112**	**2,022**	**659**	**6,645**	**10,796**	**23,343**	**34,382**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

This project corresponds to Plant Master Plan Project No. 62 and Validation Project PS-07. Construction costs under this project have been divided into four phases to correspond with yearly retirement requirements.

FY Initiated: 2015-2016
Initial Project Budget: $34,382,000
Appn. #: 6285
USGBC LEED: N/A

13. Energy Generation Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2013
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2019
Location:	Water Pollution Control Pant		

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	1,915	261	261								2,176
Design	707	9,443	9,443	3,310					3,310		13,460
Bid & Award	317										317
Construction	1,520	23,172	17,025	28,386	56,083	933			85,402		103,947
Post Construction				290		159			449		449
TOTAL	**4,459**	**32,876**	**26,729**	**31,986**	**56,083**	**1,092**			**89,161**		**120,349**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	4,459	32,876	26,729	31,986	56,083	1,092			89,161		120,349
TOTAL	**4,459**	**32,876**	**26,729**	**31,986**	**56,083**	**1,092**			**89,161**		**120,349**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance	38	40	41	42
Operating	41	42	43	45
TOTAL	**79**	**82**	**84**	**87**

Major Changes in Project Cost:

2014-2018 CIP - increase of $100.0M due to acceleration of the implementation schedule. 2015-2019 CIP - increase of $24.5M due to revised program validation cost estimate. 2016-2020 CIP - decrease of $10.4M due to reduction of project scope and revised cost estimate. 2017-2021 CIP - increase of $4.9M due to revised cost estimate.

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".

FY Initiated:	2012-2013	**Appn. #:**	7454
Initial Project Budget:	$1,300,000	**USGBC LEED:**	N/A

14. Advanced Facility Control and Meter Replacement

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2010
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2014
Revised Completion Date: 2nd Qtr. 2022

Description: This project will develop a Plant-wide automation master plan, replace existing flow meters and actuators, and upgrade 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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	668	2,226	1,971	501	352	245			1,098		3,737
Design	46	674	177	1,474	602	295			2,371		2,594
Bid & Award				50	137	75	76		338		338
Construction	36				9,691	5,147	4,941	892	20,671	227	20,934
Post Construction	147				77			24	101	58	306
TOTAL	**897**	**2,900**	**2,148**	**2,025**	**10,859**	**5,762**	**5,017**	**916**	**24,579**	**285**	**27,909**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	897	2,900	2,148	2,025	10,859	5,762	5,017	916	24,579	285	27,909
TOTAL	**897**	**2,900**	**2,148**	**2,025**	**10,859**	**5,762**	**5,017**	**916**	**24,579**	**285**	**27,909**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - decrease of $5.9 million due to decreased scope.
2013-2017 CIP - decrease of $2.1 million due to the establishment of the Treatment Plant Distributed Control System project as part of the approval of the 2011-2012 Mid-Year Budget Review.
2014-2018 CIP - increase of $500,000 due to updated cost estimate.
2015-2019 CIP - increase of $30.4 million due to revised scope, addition of meter replacement scope, and project validation cost estimate.
2016-2020 CIP - decrease of $823,000 due to reduction of project scope.
2017-2021 CIP - decrease of $5.2 million due to decreased project scope.

Notes:

This project corresponds to Plant Master Plan No. 90 and Validation Project PA-01. Prior to the 2015-2019 CIP, this project was titled “Advanced Process Control and Automation”. The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2010-2011
Initial Project Budget: $11,000,000
Appn. #: 7224
USGBC LEED: N/A

15. Treatment Plant Distributed Control System

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2012
Revised Start Date:
Initial Completion Date: 2nd Qtr. 2016
Revised Completion Date: 3rd Qtr. 2019

Description: This project will upgrade and convert 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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Design	320	80	80								400
Construction	2,174	1,138	1,050	670	1,025	1,025	575		3,295		6,519
TOTAL	**2,494**	**1,218**	**1,130**	**670**	**1,025**	**1,025**	**575**		**3,295**		**6,919**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	2,494	1,218	1,130	670	1,025	1,025	575		3,295		6,919
TOTAL	**2,494**	**1,218**	**1,130**	**670**	**1,025**	**1,025**	**575**		**3,295**		**6,919**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

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.

Notes:

FY Initiated: 2012-2013
Initial Project Budget: $4,065,000
Appn. #: 7394
USGBC LEED: N/A

16. Construction-Enabling Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2015
Revised Start Date:
Initial Completion Date: 4th Qtr. 2016
Revised Completion Date: 1st Qtr. 2017

Description: This project provides funding for construction management trailers, utility connections, fencing, and security facilities. In addition, it includes road and parking improvements and access improvements from Zanker Road to the Plant.

Justification: This project provides the infrastructure necessary to support the increased construction activity anticipated at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		8	8								8
Design		382	382								382
Bid & Award		20	20								20
Construction		3,066	3,066	770					770		3,836
Post Construction				15					15		15
TOTAL		**3,476**	**3,476**	**785**					**785**		**4,261**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		3,476	3,476	785					785		4,261
TOTAL		**3,476**	**3,476**	**785**					**785**		**4,261**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Operating					154	160	166	173			
TOTAL					**154**	**160**	**166**	**173**			

Major Changes in Project Cost:
2017-2021 CIP - increase of $709,000 due to revised cost estimate.

Notes:

FY Initiated: 2015-2016
Initial Project Budget: $3,552,000
Appn. #: 6313
USGBC LEED: N/A

17. Equipment Replacement

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: Ongoing
Revised Start Date:
Initial Completion Date: Ongoing
Revised Completion Date:

Description: This allocation provides for the ongoing replacement and rehabilitation of equipment at the Plant. Equipment anticipated to be replaced or rehabilitated includes air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments, and other equipment as required.

Justification: The replacement and rehabilitation of Plant equipment are necessary as a result of wear, obsolescence, or new or updated regulatory requirements and will ensure continued efficient operation of the Plant facilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development											
Design											
Construction		20	20	1,663	1,663	1,663	1,663	1,663	8,315		
Equipment		1,663	1,663								
TOTAL		**1,683**	**1,683**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,683	1,683	1,663	1,663	1,663	1,663	1,663	8,315		
TOTAL		**1,683**	**1,683**	**1,663**	**1,663**	**1,663**	**1,663**	**1,663**	**8,315**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated: Ongoing
Initial Project Budget:
Appn. #: 4332
USGBC LEED: N/A

18. Facility Wide Water Systems Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2014
Revised Start Date:
Initial Completion Date: 1st Qtr. 2022
Revised Completion Date: 3rd Qtr. 2022

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	173	1,323	1,192	351					351		1,716
Design				1,152	381	80			1,613		1,613
Bid & Award				25		102			127		127
Construction						10,644	542	555	11,741	362	12,103
Post Construction						15			15	51	66
TOTAL	**173**	**1,323**	**1,192**	**1,528**	**381**	**10,841**	**542**	**555**	**13,847**	**413**	**15,625**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	173	1,323	1,192	1,528	381	10,841	542	555	13,847	413	15,625
TOTAL	**173**	**1,323**	**1,192**	**1,528**	**381**	**10,841**	**542**	**555**	**13,847**	**413**	**15,625**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - increase of $1.6 million due to escalation of construction costs.

Notes:

This project corresponds to Plant Master Plan Project No. 105 and Validation Project PF-06. This project will have close-out costs only in 2022-2023.

FY Initiated: 2014-2015
Initial Project Budget: $14,130,000
Appn. #: 7679
USGBC LEED: N/A

19. Plant Infrastructure Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: Ongoing
Revised Start Date:
Initial Completion Date: Ongoing
Revised Completion Date:

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.

Justification: Many mechanical, electrical, and structural assets at the Plant are in poor condition due to age and wear. Rehabilitation, improvements, and replacement of capital infrastructure are necessary to maintain process viability and to ensure regulatory compliance, structural integrity, reliability, functionality, and safety of Plant buildings and process facilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		72	72								
Design		71	71								
Bid & Award		8	8								
Construction		1,349	1,349	1,000	1,000	1,000	1,000	1,000	5,000		
Post Construction		139	8								
Program Management											
TOTAL		**1,639**	**1,508**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,639	1,508	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,639**	**1,508**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated: Ongoing
Initial Project Budget:
Appn. #: 5690
USGBC LEED: N/A

20. Plant Instrument Air System Upgrade

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 3rd Qtr. 2014
Revised Start Date:
Initial Completion Date: 1st Qtr. 2019
Revised Completion Date: 1st Qtr. 2018

Description: This project replaces the existing high-pressure Plant instrument air supply system with a new above-grade distributed system. This project also makes electrical upgrades to provide for power and redundancy improvements to the Plant air supply system.

Justification: The instrument air supply system plays a critical role by providing high pressure air for pneumatic operations and controls of valves and instruments located throughout the Plant process areas. The existing system is outdated and its location in the basement of the Secondary Blower Building makes it vulnerable to flooding. The existing system also lacks an independent power source and sufficient reservoirs for maintaining operations during an extended power failure. Replacement of the system will improve operational reliability and minimize interruptions to critical operations.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development	51	238	73								124
Design	56	994	994								1,050
Bid & Award		22	22								22
Construction		3,519	119	3,400	66				3,466		3,585
Post Construction					33				33		33
TOTAL	**107**	**4,773**	**1,208**	**3,400**	**99**				**3,499**		**4,814**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	107	4,773	1,208	3,400	99				3,499		4,814
TOTAL	**107**	**4,773**	**1,208**	**3,400**	**99**				**3,499**		**4,814**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
2017-2021 CIP - decrease of $4.2 million due to a refined scope and revised cost estimate.

Notes:
This project corresponds to Validation Project PF-07.

FY Initiated: 2014-2015
Initial Project Budget: $9,100,000
Appn. #: 7680
USGBC LEED: N/A

21. Support Building Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: 1st Qtr. 2015
Revised Start Date: 3rd Qtr. 2015
Initial Completion Date: 3rd Qtr. 2023
Revised Completion Date: 1st Qtr. 2022

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		890	890	1,242					1,242		2,132
Design				1,058	1,856	1,850	611		5,375		5,375
Bid & Award					76	122	147		345		345
Construction					1,551	5,980	15,004	24,588	47,123		47,123
Post Construction										159	159
TOTAL		**890**	**890**	**2,300**	**3,483**	**7,952**	**15,762**	**24,588**	**54,085**	**159**	**55,134**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		890	890	2,300	3,483	7,952	15,762	24,588	54,085	159	55,134
TOTAL		**890**	**890**	**2,300**	**3,483**	**7,952**	**15,762**	**24,588**	**54,085**	**159**	**55,134**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
2016-2020 CIP - decrease of $856,000 due to revised cost estimate.

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

FY Initiated: 2014-2015
Initial Project Budget: $55,590,000
Appn. #: 7681
USGBC LEED: N/A

22. Urgent and Unscheduled Treatment Plant Rehabilitation

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: Ongoing
Revised Start Date:
Initial Completion Date: Ongoing
Revised Completion Date:

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.

Justification: This allocation is required due to the deterioration of structures and systems at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,416	1,416								
Design		128	128								
Bid & Award											
Construction		850	850	1,500	1,500	1,500	1,500	1,500	7,500		
Post Construction											
TOTAL		**2,394**	**2,394**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		2,394	2,394	1,500	1,500	1,500	1,500	1,500	7,500		
TOTAL		**2,394**	**2,394**	**1,500**	**1,500**	**1,500**	**1,500**	**1,500**	**7,500**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

Notes:
Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated: Ongoing
Initial Project Budget:
Appn. #: 7395
USGBC LEED: N/A

23. Yard Piping and Road Improvements

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Council District: 4
Location: Water Pollution Control Plant

Initial Start Date: Ongoing
Revised Start Date:
Initial Completion Date: Ongoing
Revised Completion Date:

Description: This project will rehabilitate and/or replace 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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,127	327	1,047	493	256			1,796		
Design						11,079	1,602	144	12,825		
Bid & Award						166	72	11	249		
Construction						1,188		26,197	27,385		
Post Construction											
TOTAL		**1,127**	**327**	**1,047**	**493**	**12,689**	**1,674**	**26,352**	**42,255**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,127	327	1,047	493	12,689	1,674	26,352	42,255		
TOTAL		**1,127**	**327**	**1,047**	**493**	**12,689**	**1,674**	**26,352**	**42,255**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project. This project corresponds to Plant Master Plan Project Nos. 98 and 100 and Validation Project PF-04. Prior to 2015-2019, this project was titled "Treatment Plant Street Rehabilitation".

FY Initiated: Ongoing
Initial Project Budget:
Appn. #: 7396
USGBC LEED: N/A

24. Payment for Clean Water Financing Authority Trustee

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issuances.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Program Management		5	5	5	5	5	5	5	25		
TOTAL		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**25**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		5	5	5	5	5	5	5	25		
TOTAL		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**25**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 6584

25. Preliminary Engineering

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation provides funding to support preliminary engineering for Plant-related projects, including studies, pilots, and field verifications to evaluate impacts on operations.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		1,876	1,565	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,876**	**1,565**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,876	1,565	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		**1,876**	**1,565**	**1,000**	**1,000**	**1,000**	**1,000**	**1,000**	**5,000**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7456

26. Program Management

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation funds the administration and management of the Water Pollution Control CIP.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development Program Management		14,865	10,247	8,175	1,945	2,005	1,770	1,835	15,730		
TOTAL		**14,865**	**10,247**	**8,175**	**1,945**	**2,005**	**1,770**	**1,835**	**15,730**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		14,865	10,247	8,175	1,945	2,005	1,770	1,835	15,730		
TOTAL		**14,865**	**10,247**	**8,175**	**1,945**	**2,005**	**1,770**	**1,835**	**15,730**		

Notes:
Selected budget information is not provided due to the ongoing nature of this project.

Appn. #: 7481

27. Record Drawings

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This project develops a document management system and standards for electronically capturing, indexing, storing, retrieving, distributing, and versioning master drawings, specifications, and other final design documents. It also involves inventorying, developing, updating, and integrating existing records and field drawings.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Development		250		250	58				308		308
Design					12,781	162	162	164	13,269	625	13,894
Post Construction										62	62
TOTAL		**250**		**250**	**12,839**	**162**	**162**	**164**	**13,577**	**687**	**14,264**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		250		250	12,839	162	162	164	13,577	687	14,264
TOTAL		**250**		**250**	**12,839**	**162**	**162**	**164**	**13,577**	**687**	**14,264**

Notes:
This project corresponds to Plant Master Plan Project No. 114 and Validation Project PF-05. Funding in 2017-2018 is for consultant services and some staff costs; the remaining years fund staff costs necessary to complete the project.

Appn. #: 7683

28. State Revolving Fund Loan Repayment

CSA: Environmental and Utility Services

CSA Outcome: Healthy Streams, Rivers, Marsh and Bay

Department: Environmental Services

Description: This allocation provides for the repayment of low interest State loans awarded for South Bay Water Recycling projects.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2015-16 Appn.	2015-16 Estimate	2016-17	2017-18	2018-19	2019-20	2020-21	5-Year Total	Beyond 5-Year	Project Total
Debt Service	72,076	4,464	4,464	4,464	4,464	1,804			10,732		87,272
TOTAL	**72,076**	**4,464**	**4,464**	**4,464**	**4,464**	**1,804**			**10,732**		**87,272**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	72,076	4,464	4,464	4,464	4,464	1,804			10,732		87,272
TOTAL	**72,076**	**4,464**	**4,464**	**4,464**	**4,464**	**1,804**			**10,732**		**87,272**

Appn. #: 6590

2016-2017 Capital Budget

2017-2021 Capital Improvement Program

Water Pollution Control

Summary of Projects that Start after 2016-2017

Summary of Projects with Close-Out Costs Only in 2016-2017

Summary of Reserves

Explanation of Funds

Flow and Priority of Funds

The Summary of Projects that Start after 2016-2017 includes those projects that have funding budgeted starting after 2016-2017. The Summary of Projects with Close-Out Costs Only in 2016-2017 includes those projects that are near completion with only minimal costs (typically inspection services and program management) to finish the project budgeted in 2016-2017. The Summary of Reserves includes all reserves budgeted within the Five-Year Capital Improvement Program. On the Use of Funds statement, the projects in these summaries are not numbered.

Project Name:	**Aeration Basin Future Modifications**	**Initial Start Date:**	3rd Qtr. 2019
5-Year CIP Budget:	$5,120,000	**Revised Start Date:**	
Total Budget:	$50,277,000	**Initial End Date:**	4th Qtr. 2030
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project modifies the existing step-feed aeration basins to a Modified Ludzack-Ettinger (MLE) process, which would involve structural modifications to existing tanks and new mixers, pumps, fine bubble diffusers, and methanol feed systems.

Project Name:	**FOG Receiving**	**Initial Start Date:**	3rd Qtr. 2019
5-Year CIP Budget:	$416,000	**Revised Start Date:**	
Total Budget:	$12,850,000	**Initial End Date:**	2nd Qtr. 2026
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project constructs a new FOG (Fats, Oils, Grease) receiving station; including storage tanks, access control, feed piping from the receiving station to the first phase anaerobic digesters, odor control and a ½-mile of access road improvements.

Project Name:	**Final Effluent Pump Station & Stormwater Channel Improvements**	**Initial Start Date:**	3rd Qtr. 2019
		Revised Start Date:	
5-Year CIP Budget:	$6,901,000	**Initial End Date:**	3rd Qtr. 2025
Total Budget:	$47,358,000	**Revised End Date:**	
Council District:	4		
USGBC LEED:	N/A		

Description: This project constructs a new pump station to hydraulically push the Plant's final treated effluent to the Coyote Creek. Additionally, it will improve the existing stormwater channel by rehabilitating the flapper gates and embankments.

Project Name:	**Master Plan Updates**	**Initial Start Date:**	4th Qtr. 2017
5-Year CIP Budget:	$3,000,000	**Revised Start Date:**	
Total Budget:	$3,000,000	**Initial End Date:**	4th Qtr. 2019
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project will periodically review and update the Plant Master Plan to ensure program goals and objectives are being met and incorporate any major changes that may be triggered by operational, regulatory, technological, and economic conditions.

Project Name:	**New Disinfection Facilities**	**Initial Start Date:**	2nd Qtr. 2019
5-Year CIP Budget:	$7,131,000	**Revised Start Date:**	
Total Budget:	$56,977,000	**Initial End Date:**	4th Qtr. 2027
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: 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.

Project Name:	**Plant Electrical Reliability**	**Initial Start Date:**	3rd Qtr. 2003
5-Year CIP Budget:	$4,926,000	**Revised Start Date:**	
Total Budget:	$29,193,000	**Initial End Date:**	2nd Qtr. 2014
Council District:	4	**Revised End Date:**	4th Qtr. 2020
USGBC LEED:	N/A		

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.

Project Name:	**Tunnel Rehabilitation**	**Initial Start Date:**	3rd Qtr. 2017
5-Year CIP Budget:	$9,103,000	**Revised Start Date:**	
Total Budget:	$27,702,000	**Initial End Date:**	3rd Qtr. 2027
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: 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.

Project Name:	**Combined Heat and Power Equipment Repair and Rehabilitation**	**Initial Start Date:**	3rd Qtr. 2012
5-Year CIP Budget:	$120,000	**Revised Start Date:**	
Total Budget:	$17,520,000	**Initial End Date:**	2nd Qtr. 2013
Council District:	4	**Revised End Date:**	1st Qtr. 2017
USGBC LEED:	N/A		

Description: This project will install new digester gas compressors housed in a new building, along with new digester gas pre-coolers, cooling towers, gas piping, and associated utility tie-ins. In addition, this project will replace an existing digester gas holder. The funds remaining will complete a punch list of items for the project.

Summary of Reserves

Project Name:	**Equipment Replacement Reserve**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$5,000,000	**Revised Start Date:**	
Total Budget:	$5,000,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This reserve provides for unforeseen replacement and rehabilitation of equipment that, due to age, wear, or obsolescence, must be replaced for the efficient operation of the Plant.

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.

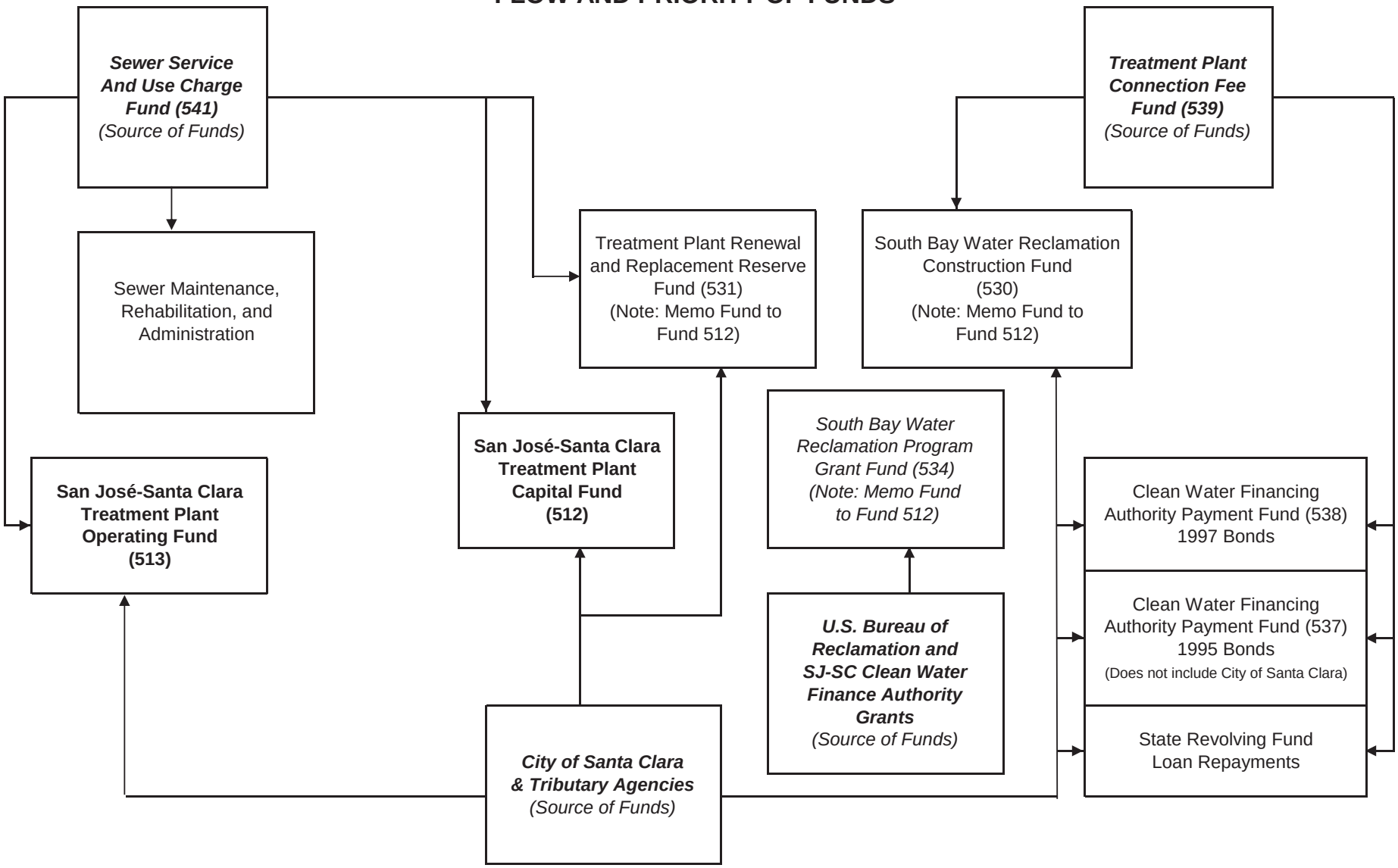
Tributary agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the Plant.

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.

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.