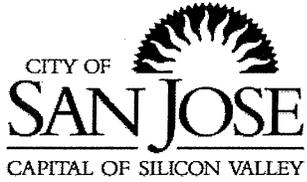


TPAC Operating and Capital Budgets, submitted to TAC and TPAC each May.



Memorandum

**TO: TREATMENT PLANT ADVISORY
COMMITTEE**

FROM: Kerrie Romanow

**SUBJECT: FIVE-YEAR 2016-2020 PROPOSED
CAPITAL IMPROVEMENT
PROGRAM**

DATE: May 7, 2015

Approved

Date

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility Proposed Five-Year 2016-2020 Capital Improvement Program (CIP). The Proposed Five-Year CIP is provided to the Treatment Plant Advisory Committee for review, and for a recommendation to the San José City Council for approval.

/s/

KERRIE ROMANOW

Director, Environmental Services

If you should have any questions, please contact Ashwini Kankat at 408-975-2553.

PROPOSED
SAN JOSE / SANTA CLARA
WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

Five-Year 2016-2020
Capital Improvement Program

Submitted by

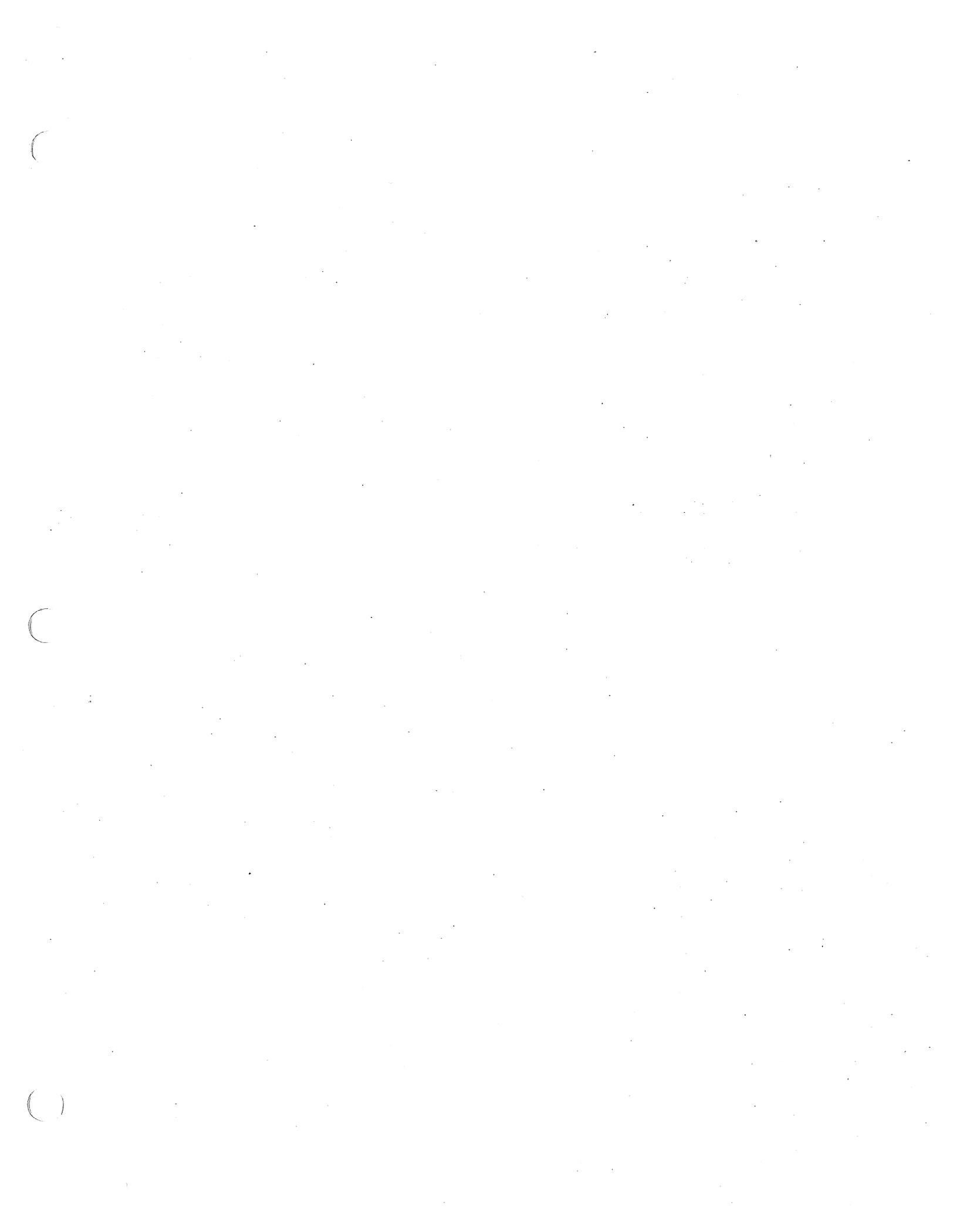
Kerrie Romanow, Director

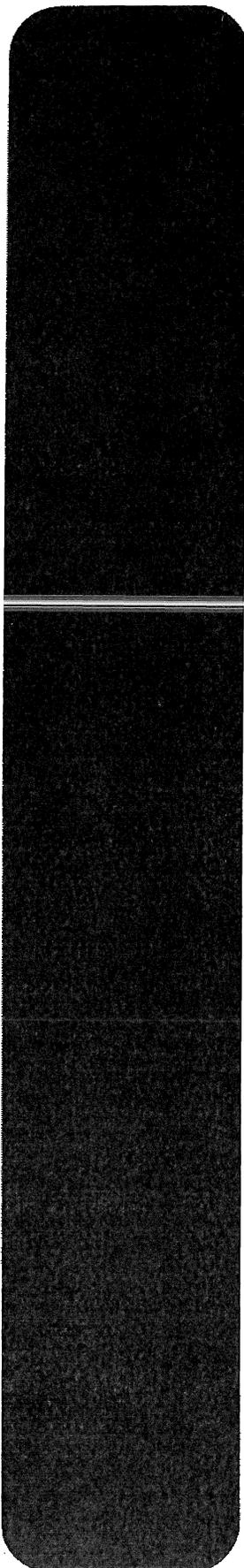
Environmental Services Department

City of San Jose

TO: Treatment Plant Advisory Committee

Jamie Matthews	(Chair) Mayor, City of Santa Clara
Sam Liccardo	(Vice Chair) Mayor, City of San Jose
Pat Kolstad	Councilmember, City of Santa Clara
Jose Esteves	Mayor, City of Milpitas
Steven Leonardis	Boardmember, West Valley Sanitation District
John M. Gatto	Boardmember, Cupertino Sanitary District
David Sykes	Assistant City Manager (Int), City of San Jose
Pierluigi Oliverio	Councilmember, City of San Jose
Marjorie Matthews	Councilmember, City of San Jose





2015-2016 CAPITAL BUDGET

**2016-2020 CAPITAL
IMPROVEMENT PROGRAM**

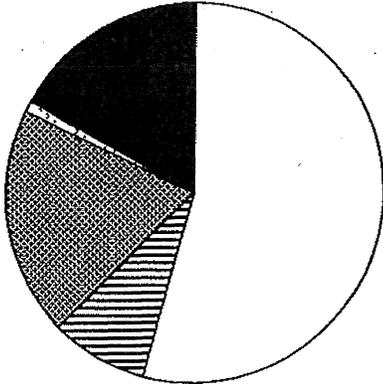


**WATER POLLUTION
CONTROL**

WATER POLLUTION
CONTROL

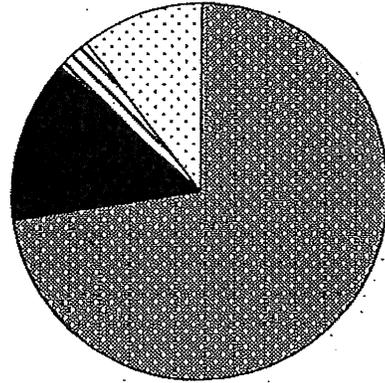
WATER POLLUTION CONTROL 2016-2020 Capital Improvement Program

2015-2016 Proposed
Source of Funds



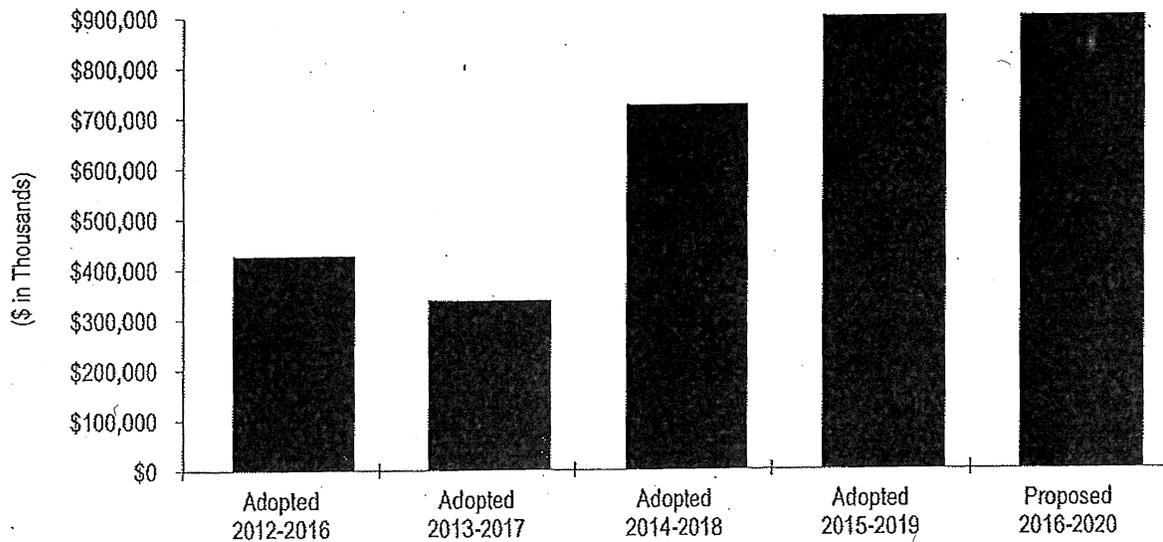
- Beginning Fund Balance
- ▨ Other Government Agencies
- ▩ Transfers
- ▧ Interest and Miscellaneous
- Bonds/Commercial Paper

2015-2016 Proposed
Use of Funds



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

GIP History



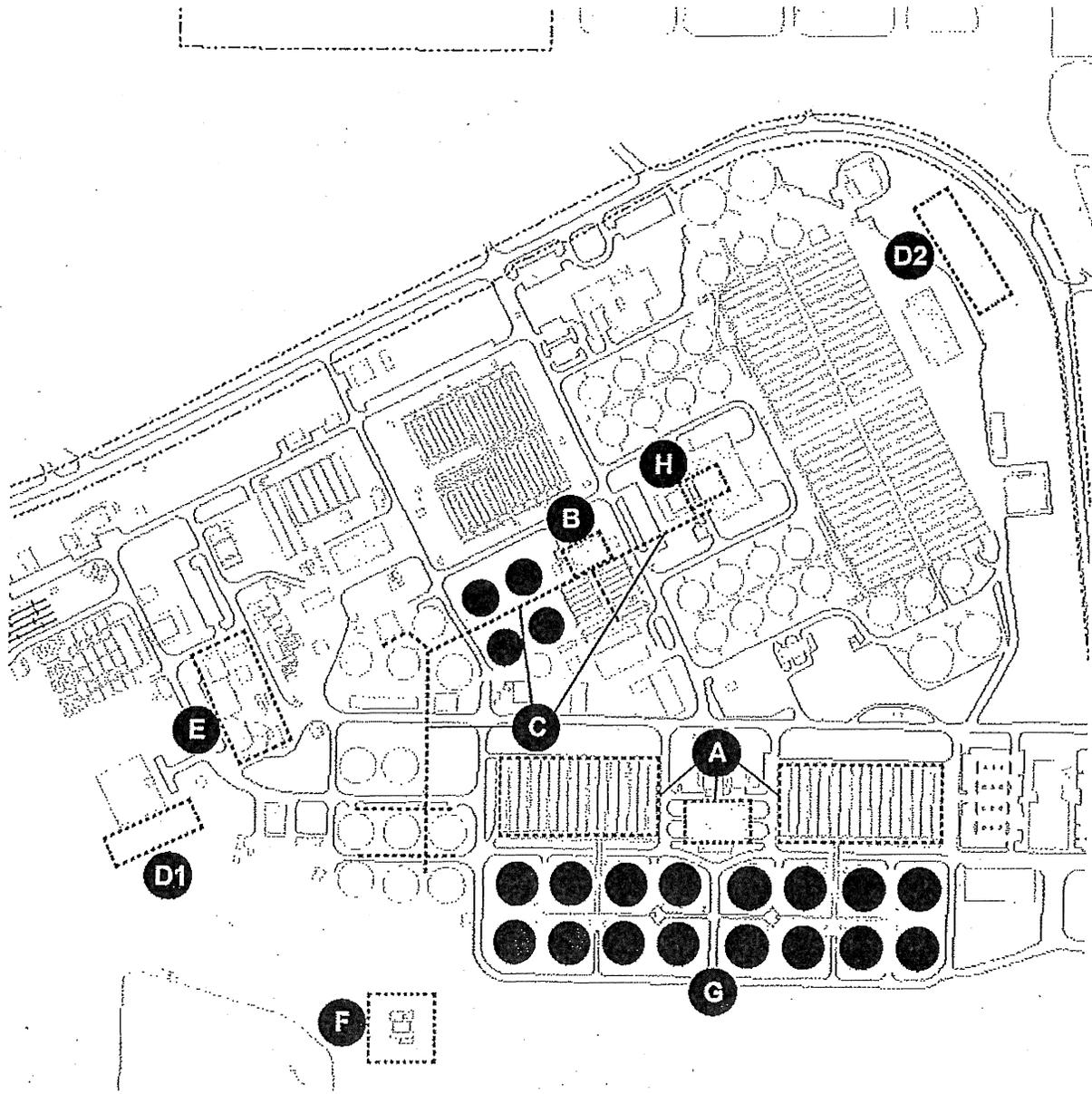
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Water Pollution Control

2016-2020 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 & 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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Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

INTRODUCTION

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 4, 2013, the City Council approved to change the name of the Plant to the San José-Santa Clara Regional Wastewater Facility for use in future communications and public outreach.

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)	108
DRY METRIC TONS OF BIOSOLIDS HAULED EACH YEAR	45,100
AVERAGE MEGAWATTS PRODUCED	9.8

The 2016-2020 Proposed Capital Improvement Program (CIP) provides funding of \$1.04 billion, of which \$177.8 million is allocated in 2015-2016. The five-year CIP is developed by City staff, reviewed by the Treatment Plant Advisory Committee (TPAC), and forwarded to the San José City Council for budget approval. 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; Healthy Streams, Rivers, Marsh, and Bay; and Safe, Reliable, and Sufficient Water Supply.*

PROGRAM PRIORITIES AND OBJECTIVES

The 2016-2020 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.

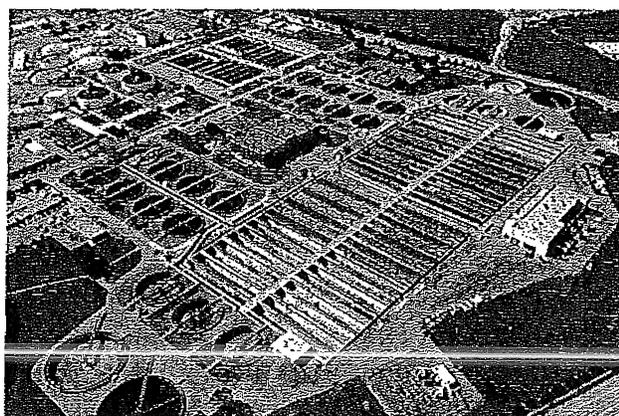
Water Pollution Control Capital Program

2016-2020 Proposed Capital Improvement Program

Overview

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.

A capital program of this size will require significant resources in order to manage and deliver effective projects on time and on budget. On September 24, 2013, the City Council approved a consultant agreement with MWH Americas, Inc. to assist and support ESD in developing and implementing this CIP. On October 15, 2013, MWH program team members mobilized and are now co-located with City staff to form an integrated Program Management Office and program team. In February 2014, the MWH program team completed a detailed project validation process to critically evaluate project needs and priorities. The projects included with this Proposed CIP are based on the outcome of the validation process. Priorities for the near term include securing program funding, evaluating project delivery approaches, developing program staff, and continuing development of project delivery processes.

Program Funding: Over the last year, City staff has worked with program management and financial consultants to develop a long-term funding strategy to provide sustained funding for implementing the CIP program, while minimizing potential impacts on rate payers and ensuring intergenerational equity. As part of this effort, staff met with representatives from Santa Clara and the tributary agencies to discuss guiding principles, funding options, and reserve policies, and to request feedback. Some of the key guiding principles include establishing a predictable base level of cash-funded capital investments, allowing time for all tributary agencies to plan for future revenue needs, and minimizing borrowing costs to the maximum extent practical. A recommended funding strategy will be brought to TPAC and the City Council in spring 2015. For the next five years, San José's portion of the funding for the Proposed CIP is programmed into the 2016-2020 sewer rate models with moderate rate increases planned beginning in 2015-2016.

Water Pollution Control Capital Program

2016-2020 Proposed Capital Improvement Program

Overview

PROGRAM PRIORITIES AND OBJECTIVES

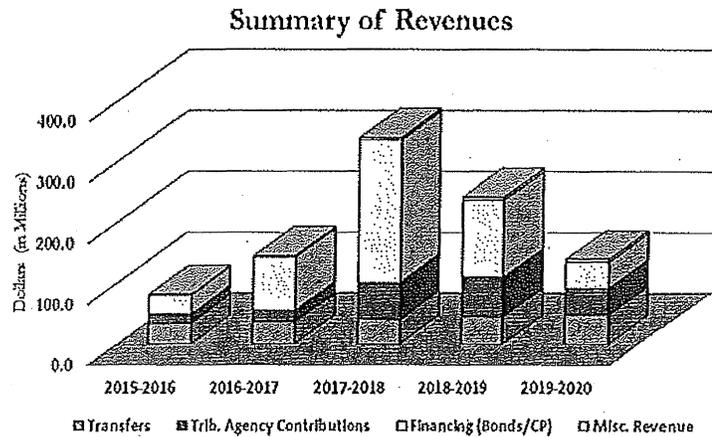
Project Delivery Approach: The Proposed CIP assumes that the majority of projects will be delivered using traditional project delivery (design-bid-build). With the passage of SB 785 in September 2014, the Plant now has the option, under State authority, to use progressive design-build to deliver projects, pending approval of City Council on a case-by-case or programmatic basis. Staff will be evaluating the application of these delivery methods as projects come forward.

Program Staff Development: Successful delivery of this large, multi-disciplinary CIP requires an integrated team of City staff, outside consultants, and contractors. Over the last fiscal year, the program team has increased its attention on project delivery. Staff continues to identify resource needs and secure 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, and staff from MWH Americas, Inc. The program will also continue to draw from the professional consultant and contractor community for subject-matter technical expertise, engineering services, and construction management.

Program Delivery Process Development: Building on the program start-up activities, which concluded in June 2014, the program team will continue to develop schedule and budget control, reporting, and central document management systems to provide a consistent approach for effective 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.

SOURCES OF FUNDING

Revenues for the Proposed 2016-2020 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 US Bureau of Reclamation; and bond and commercial paper proceeds.



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 \$193.4 million, which reflects a \$23.0 million (10.6%) decrease compared to the 2015-2019 Adopted CIP, due to the change in projects recommended from the validation process as described under Program Priorities and Objectives.

Water Pollution Control Capital Program

2016-2020 Proposed Capital Improvement Program

Overview

SOURCES OF FUNDING

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 Treatment 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 \$203.4 million, which represents a \$70.2 million (52.7%) increase compared to the 2015-2019 Adopted CIP, due primarily to the assumption included in the CIP that all tributary agencies will use commercial paper proceeds as part of their financing strategies.

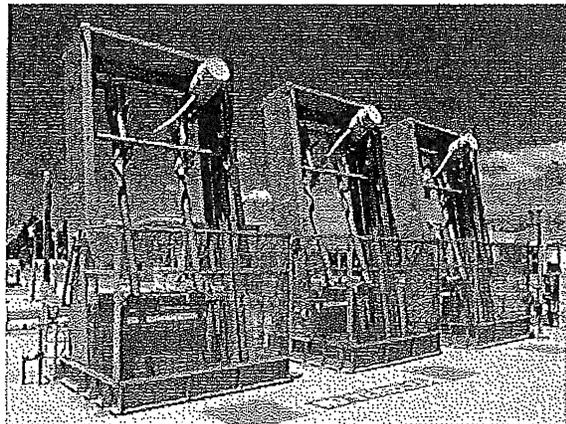
To accommodate PMP project costs, a bond issuance combined with Commercial Paper proceeds (CP), totaling \$517.3 million, has been programmed in this CIP. Debt service on the bonds/CP is estimated to be approximately \$1.6 million in 2015-2016 and 2016-2017, rising to approximately \$109.5 million in 2017-2018, \$55.7 million in 2018-2019, and \$48.1 million in 2019-2020, reflecting the amortization of the interest and principal loan amount, in addition to the retirement of commercial paper loans. Based on the priorities identified through the validation process, the estimated size of the issuance and the related debt service are scheduled to cover project costs programmed in the 2016-2020 Proposed CIP while avoiding large rate increases that would be required to fund the PMP in a "pay-as-you-go" scenario. The bond issuance does not reflect a more comprehensive financing plan that will be required to accomplish the full 30-year PMP. Staff is currently pursuing funding for some projects through the Clean Water State Revolving Fund. If successful, the debt service in 2017-2018 would be eliminated.

PROGRAM HIGHLIGHTS

The wastewater that enters the Plant is treated using various physical and biological processes before being discharged into San Francisco Bay. This section provides an overview of each treatment process and identifies some of the major projects to be implemented with this CIP.

Preliminary Wastewater Treatment

The headworks facility, located at the front end of the Plant, is designed to provide preliminary treatment of the incoming wastewater. Large solids such as rags, sticks, floatables, grit, and grease are removed through a screening and grit removal process to protect downstream pumping and other equipment. Projects included with this CIP are focused on constructing a new headworks facility and improving the existing wet weather reliability headworks structures.



Headworks Bar Screens

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Preliminary Wastewater Treatment (Cont'd.)

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Headworks Improvements	Modify Headworks No. 2 to accommodate all dry weather flow to allow Headworks No. 1 (HW1) to be taken out of service. Based on condition assessment, rehabilitate HW1 to keep it operational until the New Headworks is completed.	\$27.8 million	3 rd Quarter 2020
New Headworks	Construct new headworks, expand and line the equalization basin as needed, and incorporate odor control measures.	\$90.0 million	2 nd Quarter 2022

Primary Wastewater Treatment

The primary treatment process consists of a series of uncovered concrete holding tanks fitted with mechanisms that work to slow the flow of wastewater and allow heavy solids to settle out while allowing oil, grease, and lighter solids to float to the surface.

Mechanical skimmers remove grease and floatable materials from the water surface and settled solids (i.e., sludge) are collected at the bottom of the tanks while the remaining liquid waste stream is moved onto the next process for further treatment. Rehabilitation of the primary tanks will be conducted in four phases, one quadrant at a time over an estimated ten-year period. Funding included with this CIP focuses on the first phase of work, which will include replacement of all mechanical, electrical, and controls equipment; refurbishment and coating of concrete; structural modifications to accommodate odor control covers; and odor treatment.

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	Seismic retrofit primary tanks for odor control covers, coat concrete, convert clarifier mechanisms to stainless steel, and install odor control treatment system.	\$36.0 million	4 th Quarter 2025

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Primary Wastewater Treatment (Cont'd.)

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Iron Salt Feed Station	Construct permanent iron salt and polymer dosing station including a concrete containment structure, pumps, piping, and instrumentation to dose and deliver iron salt solution. Adding iron salts to incoming wastewater will improve Plant operations by enhancing the settling of sludge in the primary clarifiers and reducing corrosion and odor.	\$2.2 million	3 rd Quarter 2017

Secondary Wastewater Treatment

The secondary treatment process at the Plant consists of a series of aeration basins and clarifiers where biological treatment of the wastewater takes place. Microorganisms and wastewater are mixed and aerated in these tanks for varying lengths of time and intensity, resulting in the settling out of large particulate matter or sludge. A portion of the settled sludge is returned to the secondary treatment process for re-use with the remainder removed as excess waste.

The secondary treatment process removes contaminants as required by the Plant's National Pollutant Discharge Elimination System (NPDES) discharge permit. Rehabilitation of the secondary and nitrification clarifiers will be conducted in phases and involves performance modifications, along with mechanical, structural, and electrical rehabilitation. Funding included with this CIP focuses on rehabilitating a number of nitrification and secondary aeration tanks and clarifiers.



Secondary Aeration Tanks

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Aeration Tanks and Blower Rehabilitation	Rehabilitate secondary and nitrification aeration tanks. Replace coarse bubble diffusers with fine bubble diffusers. Install Variable Frequency Drives (VFDs) in Secondary Blower Building or Building 40. May replace S11 switchgear and install VFDs in Nitrification Blower Building.	\$35.0 million	1 st Quarter 2029

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

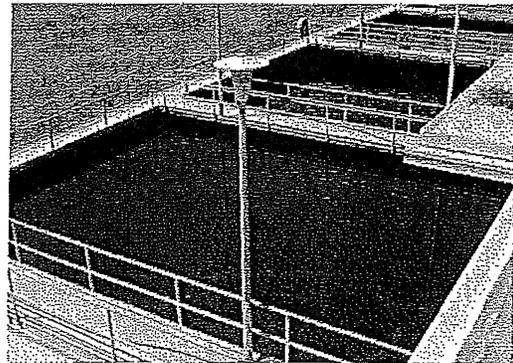
Secondary Wastewater Treatment (Cont'd.)

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Nitrification Clarifier Rehabilitation	Rehabilitate structural, mechanical, and electrical elements of existing nitrification clarifiers.	\$48.2 million	2 nd Quarter 2022
Secondary Clarifier Rehabilitation	Rehabilitate structural, mechanical, and electrical elements of existing secondary clarifiers.	\$25.9 million	4 th Quarter 2021

Tertiary Wastewater Treatment

The tertiary treatment process is the final treatment stage at the Plant and consists of a gravity filtration process and a disinfection process. The Plant currently filters a portion of the secondary effluent stream to re-use standards, and the remainder to the standards required for discharge to San Francisco Bay.

Due to the age and condition of the existing tertiary filters, a significant investment would be required to refurbish and retain them for long-term future use. Work included with this CIP focuses on replacing filter media and underdrain systems to ensure continued regulatory compliance and operational reliability. Other work includes improvements to the Plant's outfall bridge and levee and tracking regulatory developments, which may trigger the need for a new disinfection facility in the next two to three NPDES permit cycles (a permit cycle takes five years).



Existing Filter Complex

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Filter Rehabilitation	Replace filter media and, potentially, underdrain systems, replace valves and electrical controls, install air scouring equipment and piping, and repair concrete.	\$32.7 million	2 nd Quarter 2022
Outfall Bridge and Levee Improvements	Conduct condition assessment, repair or replace bridge and instrumentation supports, repair levee and gate, and refurbish electrical transformer.	\$9.4 million	4 th Quarter 2020

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Biosolids

The Plant currently processes biosolids material through a combination of anaerobic digestion, lagoon storage, and air drying. The final product is recycled as Alternative Daily Cover (ADC) at the Newby Island landfill. Based on the potential closure of the Newby Island landfill in 2025, potential changes to biosolids regulations, and odor impacts to the surrounding community, the Plant Master Plan recommended transitioning out of the current open-air lagoons and solar drying beds to new enclosed mechanical dewatering and thermal drying facilities. In November 2014, staff presented a biosolids transition strategy to TPAC and the City Council that recommended converting the anaerobic digesters from a mesophilic to thermophilic process (TPAD), proceeding with mechanical dewatering, and deferring thermal drying. In December 2014, the City Council approved proceeding with TPAD and deferring thermal drying. The City Council also directed staff to return with more information on the dewatering facility and concurrent odor study in spring 2015; this is currently planned to be heard at the Transportation and Environmental Committee on May 4, TPAC on May 14, and the City Council on June 2, 2015.

Funding included with this CIP focuses on the first phase of the digester rehabilitation, construction of a new digested sludge dewatering facility (pending City Council approval), and retirement of the existing lagoons and drying beds.

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Digested Sludge Dewatering Facility	Construct new mechanical dewatering facility and support systems to replace existing sludge storage lagoons and open air solar drying beds.	\$67.4 million	3 rd Quarter 2020
Digester and Thickener Facilities Upgrade	Rehabilitate up to ten anaerobic digesters, including new covers and mixing systems, and heating system upgrades. Modify six dissolved air flotation units for co-thickening and odor control upgrades. Construct new above-ground gas manifold, new sludge pipeline, and new waste biogas flare system. Convert four digesters from mesophilic to thermophilic operation.	\$92.3 million	4 th Quarter 2025
Lagoons and Drying Beds Retirement	Decommission use of existing sludge storage lagoons and open air solar drying beds for post-digestion processing through a phased approach.	\$4.4 million	2 nd Quarter 2028

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

Electrical Systems and Power Generation

The day-to-day operation of the Plant depends heavily on having reliable energy sources and reliable, operable systems with built-in redundancy. The Plant's engine generators, mechanical and electrical process air compressor, and gas compressors are between 17 and 58 years old, and have been breaking down with increasing frequency, well beyond forecasted levels. Funding included with this CIP focuses on construction of a new digester gas compressor facility, a new gas holder, new advanced internal combustion engines, and backup diesel generators. Additional switchgear replacements/upgrades and other electrical improvements will also be made to further enhance electrical reliability at the Plant.

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Combined Heat and Power Equipment Repair and Rehabilitation	Install new digester gas compressors and digester gas holder.	\$915,000	3 rd Quarter 2016
Energy Generation Improvements	Construct a new cogeneration facility to replace existing engine-generators with new internal combustion engines and construct new emergency diesel generators.	\$86.7 million	1 st Quarter 2019

Advanced Process Control Systems

The Plant is a highly complex, automated facility monitored and controlled by a system of instrumentation (meters, gauges, controllers, etc.) and a Distributed Control System (DCS). The DCS allows operators in a control center to remotely monitor and control operations of the treatment processes, such as opening a valve and adjusting flow through a certain process area using information gathered through the meters and gauges. Funding included with this CIP focuses on development of a Plant-wide automation master plan, flow meter replacement, sensor and control upgrades, and DCS system upgrades.

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program

Overview

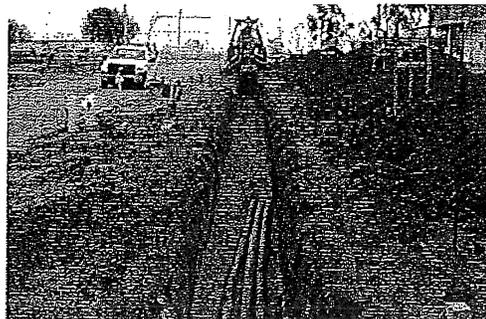
PROGRAM HIGHLIGHTS

Advanced Process Control Systems (Cont'd)

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Advanced Facility Control and Meter Replacement	Develop an automation master plan, replace existing flowmeters and actuators, and upgrade sensors, controls, and monitoring equipment throughout the Plant.	\$29.3 million	4 th Quarter 2019
Treatment Plant Distributed Control System	Upgrade and convert system hardware and software components.	\$2.0 million	2 nd Quarter 2019

Site Facility Improvements

Many of the Plant's buildings and grounds are up to 50 years old. As the Plant expanded, support buildings and infrastructure have become decentralized, resulting in inefficient operations. This CIP includes funding for various site improvement projects, such as building improvements, road and storm drainage improvements, equipment replacement, handrail replacements, yard piping rehabilitation, and water systems improvements.



Fire Main Replacement - Phase 2

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Site Facility Improvements (Cont'd.)

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
Construction-Enabling Improvements	Construct new construction management trailers, utility connections, fencing, and security facilities.	\$3.6 million	4 th Quarter 2016
Equipment Replacement	In-kind replacement of air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments, and other capital equipment as required.	\$8.3 million	Ongoing
Facility Wide Water Systems Improvements	Rehabilitate, replace, and/or extend the Plant's four water systems, including piping, valves, pumps, controls, and other ancillary equipment.	\$15.3 million	3 rd Quarter 2020
Plant Infrastructure Improvements	Replacement and rehabilitation work includes handrail replacement, concrete repairs, and Plant support systems/building improvements.	\$5.0 million	Ongoing
Support Building Improvements	Construct various tenant improvements to administration, operations, engineering, and other support buildings. Construct new warehousing facilities and electronic warehouse management system.	\$16.4 million	4 th Quarter 2026
Tunnel Rehabilitation	Structural, mechanical, coating, and piping improvements to the Plant's tunnel system.	\$9.2 million	3 rd Quarter 2026
Urgent and Unscheduled Treatment Plant Rehabilitation	Timely response to unanticipated maintenance and repair needs at the Plant.	\$7.5 million	Ongoing
Yard Piping and Road Improvements	Phased rehabilitation or replacement of pipes throughout the Plant. Roadway and drainage improvements to Plant's main operations and residual solids management areas.	\$16.2 million	Ongoing

Water Pollution Control Capital Program

2016-2020 Proposed Capital Improvement Program

Overview

PROGRAM HIGHLIGHTS

South Bay Water Recycling Program

The South Bay Water Recycling (SBWR) System was authorized by the City Council in 1993 as a project to divert up to 15 million gallons per day of treated effluent from the bay during the summer by providing non-potable recycled water to customers in Milpitas, Santa Clara, and San José. Major developments during the previous CIP period include the March 24, 2014 commissioning of the Advanced Water Purification Center (Center), which is a joint project with the Santa Clara Valley Water District (District). The Center has been providing purified water from secondary effluent. Product water is blended with tertiary Title 22 water at the transmission pumping station and provided to customers. The addition of the purified water from the Center reduces total dissolved solids of the water to under 550 mg/L, as well as augmenting recycled water supplies during peak hours in the summer.

In another joint effort with the City of San José and the District, the multi-year SBWR Master Plan was completed in December 2014. The strategic guidance document provides recommendations and options for SBWR's current service reliability, potential future expansion, operation, and maintenance of the system, cost effectiveness, and funding through engagement of key stakeholders from the Plant Tributary Agencies and the Santa Clara Valley Water District. The Master Plan includes an assessment of the ability of existing infrastructure to meet current and future recycled water demands and identifies future capital improvements to enhance system reliability and water quality.

Project Name	Description	2016-2020 CIP Cost	Estimated Completion
SBWR System Reliability and Infrastructure Replacement	System reliability improvements including, but not limited to, rehabilitation and/or replacement of pump station components, control and communication systems, pipelines, and other system related infrastructure.	\$1.5 million	2 nd Quarter 2016

Reserves

As in prior years, the 2016-2020 Proposed CIP includes a \$5.0 million Equipment Replacement Reserve. The reserve level was established in accordance with the State Water Resources Control Board Fund Loan Agreement policy, the Clean Water Financing Authority bond covenants, and requirements in the Master Agreements for Wastewater Treatment between the City of San José, City of Santa Clara, and the Plant Tributary Agencies.

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

MAJOR CHANGES FROM THE 2015-2019 ADOPTED CIP

Major changes from the 2015-2019 Adopted CIP include:

Process Area	Project Name	Funding Change (\$)
Preliminary Treatment	Headworks Improvements	- 1.4 million
Preliminary Treatment	New Headworks	+ 1.7 million
Primary Treatment	E. Primary Rehab, Seismic Retrofit, & Odor Ctrl.	- 6.2 million
Primary Treatment	Iron Salt Feed Station	+ 2.3 million
Secondary Treatment	Nitrification Clarifier Rehabilitation	+ 18.6 million
Secondary Treatment	Secondary Clarifier Rehabilitation	+ 23.9 million
Secondary Treatment	Aeration Tanks and Blower Rehabilitation	- 8.9 million
Tertiary Treatment	Filter Rehabilitation	+ 5.8 million
Tertiary Treatment	Outfall Bridge and Levee Improvements	+ 1.3 million
Biosolids	Digester and Thickener Facilities Upgrade	+ 28.6 million
Biosolids	Lagoons and Drying Beds Retirement	- 7.8 million
Elect. Sys. & Power Gen.	Energy Generation Improvements	- 15.2 million
Adv. Proc. Ctrl. & Automation	Advanced Facility Control and Meter Replacement	- 2.8 million
Site Facility Improvements	Construction-Enabling Improvements	+ 3.6 million NEW
Site Facility Improvements	Facility Wide Water Systems Improvements	+ 1.5 million
Site Facility Improvements	Plant Instrument Air System Upgrade	- 8.6 million
Site Facility Improvements	Support Building Improvements	- 5.9 million
Non-Construction	Program Management	- 17.6 million

While the overall proposed CIP program amount dropped compared to the 2015-2019 Adopted CIP, and capital funding dropped in 2015-2016, 2016-2017, and 2017-2018, the proposed CIP increases in 2018-2019. The three main reasons for this shift in costs are:

1. The program team reexamined the activity durations for the feasibility/development phases developed during the validation process. Activities included environmental clearance, procurement, project alternative analysis, condition assessment, and conceptual design.
2. The program team has chosen to procure major consultant contracts as master agreements, instead of standard agreements as assumed in the 2015-2019 Adopted CIP, effectively postponing the encumbrance of design funds by up to one year.

Water Pollution Control Capital Program
2016-2020 Proposed Capital Improvement Program
Overview

MAJOR CHANGES FROM THE 2015-2019 ADOPTED CIP

3. In December 2014, the City Council directed staff to place the Digested Sludge Dewatering Facility on hold and return with more information on the project and the concurrent odor study in spring 2015, which moved the construction award to 2017-2018.

OPERATING BUDGET IMPACT

Most projects in this Proposed CIP are expected to reduce operations and maintenance liabilities in the Operating Budget. The Energy Generation Improvements will replace existing engine generators with lower emissions internal combustion engines and will start operation in 2018-2019. As part of the Energy Generation Improvements, emergency diesel generators will start operation in 2016-2017 and will have some marginal maintenance and operations costs. A few other projects are expected to introduce new operating costs (primarily chemical costs), particularly those with odor control elements (e.g., Iron Salt Feed Station and Digester and Thickener Facilities Upgrade). These costs are expected to be partially offset by energy savings achieved through better solids settling, less aeration demand, and improved bio-gas production, as well as other operational efficiencies and lower maintenance costs.

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

	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>
Iron Salt Feed Station	\$245,000	\$1,117,000	\$1,176,000	\$1,239,000
Digested Sludge Dewater Facility				\$2,456,000
Digester and Thickener Facilities Upgrade			\$609,000	\$634,000
Combined Heat and Power Equipment	\$4,000	\$4,000	\$4,000	\$4,000
Repair and Rehabilitation				
Energy Generation Improvements	<u>\$77,000</u>	<u>\$79,000</u>	<u>(\$5,268,000)</u>	<u>(\$5,169,000)</u>
	\$326,000	\$1,200,000	(\$3,479,000)	(\$836,000)

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.

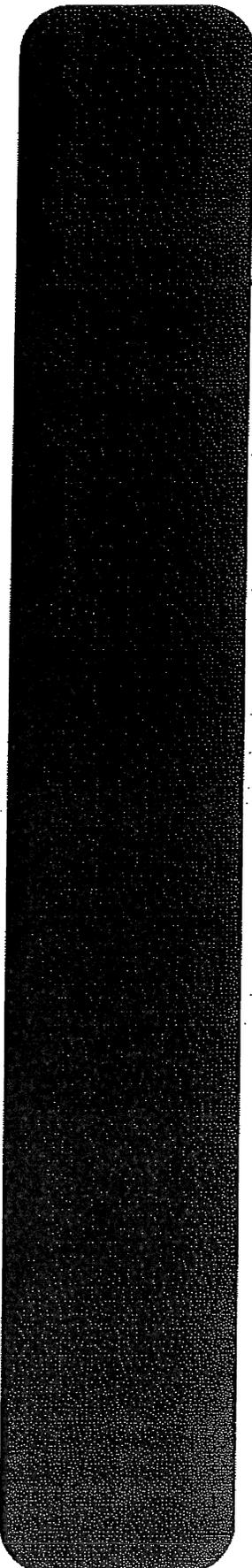
Of significance, the new biosolids process is expected to have a significant impact on the operating budget in 2019-2020. The new biosolids dewatering facility is energy-intensive, requires an enclosed odor-controlled building, and potentially 24-hour operations. The final biosolids disposition alternatives will also impact future operating costs. In December 2014, the City Council directed staff to return with more information on the dewatering facility and concurrent odor study in spring 2015.

Water Pollution Control
2016-2020 Proposed Capital Improvement Program

Attachment A - Operating Budget Impact

	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>
<u>Water Pollution Control</u>				
Iron Salt Feed Station	\$245,000	\$1,117,000	\$1,176,000	\$1,239,000
Digested Sludge Dewatering Facility				\$2,456,000
Digester and Thickener Facilities Upgrade			\$609,000	\$634,000
Combined Heat and Power Equipment Repair and Rehabilitation	\$4,000	\$4,000	\$4,000	\$4,000
Energy Generation Improvements	<u>\$77,000</u>	<u>\$79,000</u>	<u>(\$5,268,000)</u>	<u>(\$5,169,000)</u>
Total Water Pollution Control	\$326,000	\$1,200,000	(\$3,479,000)	(\$836,000)

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2015-2016 CAPITAL BUDGET

2016-2020 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
2016-2020 Proposed Capital Improvement Program
Source of Funds (Combined)

SOURCE OF FUNDS	Estimated 2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund (512)							
Beginning Fund Balance	122,434,440	96,359,357	18,573,357	25,233,357	28,929,357	39,512,357	96,359,357 *
Sale of Bonds				178,000,000	90,000,000	28,000,000	296,000,000
Revenue from Other Agencies:							
Federal Government							
- SBWR Master Plan Grant	439,000						
- U.S. Bureau of Reclamation Grant	250,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Water Pollution Control Plant User Agencies							
- 2005 Bond Debt Repayment	1,216,000	1,221,000	1,070,000	165,000	155,000	155,000	2,766,000
- 2015-2016 Bond Debt Service Repayment		576,000	603,000	43,196,000	43,465,000	31,477,000	119,317,000
- 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	1,374,000	555,000		4,677,000
- WPCP Projects	21,341,000	11,553,000	15,382,000	15,774,000	19,858,000	11,731,000	74,298,000
Contributions, Loans and Transfers from:							
Special Funds							
- Transfer for 2015-2016 Debt Service from the Sewer Service and Use Charge Fund (541)		980,000	1,041,000	5,268,000	12,228,000	16,631,000	36,148,000
- Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	3,090,000	3,090,000	1,249,000		10,519,000
- Transfer from the Sewer Service and Use Charge Fund (541)	48,000,000	30,722,000	31,800,000	31,799,000	31,452,000	31,455,000	157,228,000
Interest Income	569,000	1,272,000	2,224,000	3,848,000	4,734,000	4,443,000	16,521,000

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Source of Funds (Combined)

<u>SOURCE OF FUNDS</u> (CONT'D.)	<u>Estimated 2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>	<u>5-Year Total</u>
<u>San José-Santa Clara Treatment Plant Capital Fund (512)</u>							
Miscellaneous Revenue							
- Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
- Miscellaneous Revenue	598,000						
Reserve for Encumbrances	58,434,917						
Commercial Paper Proceeds		30,025,000	86,755,000	54,670,000	35,625,000	14,190,000	221,265,000
Total San José-Santa Clara Treatment Plant Capital Fund	<u>258,135,357</u>	<u>177,811,357</u>	<u>163,131,357</u>	<u>363,636,357</u>	<u>269,469,357</u>	<u>178,813,357</u>	<u>1,040,613,357</u> *
TOTAL SOURCE OF FUNDS	<u>258,135,357</u>	<u>177,811,357</u>	<u>163,131,357</u>	<u>363,636,357</u>	<u>269,469,357</u>	<u>178,813,357</u>	<u>1,040,613,357</u> *

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

<u>USE OF FUNDS</u>	<u>Estimated 2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>	<u>5-Year Total</u>
<u>Construction Projects</u>							
Public Art							
Public Art	849,000	41,000	657,000	774,000	799,000	51,000	2,322,000
Total Public Art	849,000	41,000	657,000	774,000	799,000	51,000	2,322,000
<u>Preliminary Wastewater Treatment</u>							
Headworks No. 2 Enhancement	100,000						
1. Headworks Improvements	2,536,000	1,836,000	2,763,000	22,011,000	944,000	291,000	27,845,000
2. New Headworks	2,917,000	1,711,000	10,515,000	801,000	75,218,000	1,799,000	90,044,000
Total Preliminary Wastewater Treatment	5,553,000	3,547,000	13,278,000	22,812,000	76,162,000	2,090,000	117,889,000
<u>Primary Wastewater Treatment</u>							
3. East Primary Rehabilitation, Seismic Retrofit, and Odor Control		1,636,000	691,000	10,841,000	22,176,000	686,000	36,030,000
4. Iron Salt Feed Station	4,860,000	1,700,000	492,000				2,192,000
Total Primary Wastewater Treatment	4,860,000	3,336,000	1,183,000	10,841,000	22,176,000	686,000	38,222,000
<u>Secondary Wastewater Treatment</u>							
Aeration Basin Future Modifications						846,000	846,000
Secondary Clarifier Rehabilitation			448,000	221,000	4,003,000	21,209,000	25,881,000
5. Aeration Tanks and Blower Rehabilitation	1,580,000	435,000	492,000	10,705,000	1,211,000	22,156,000	34,999,000
6. Nitrification Clarifier Rehabilitation	3,300,000		7,161,000	40,592,000	213,000	213,000	48,179,000
Total Secondary Wastewater Treatment	4,880,000	435,000	8,101,000	51,518,000	5,427,000	44,424,000	109,905,000

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Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

<u>USE OF FUNDS (CONT'D.)</u>	<u>Estimated 2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>	<u>5-Year Total</u>
Construction Projects							
Tertiary Wastewater Treatment							
Alternative Filter Technology						81,000	81,000
Field Verification						902,000	902,000
Final Effluent Pump Station & Stormwater Channel Improvements					653,000	299,000	952,000
New Filter Complex	27,000						
7. Filter Rehabilitation	1,153,000	1,061,000	5,741,000	481,000	25,201,000	240,000	32,724,000
8. Outfall Bridge and Levee Improvements	300,000	1,083,000	1,331,000	209,000	6,469,000	320,000	9,412,000
Total Tertiary Wastewater Treatment	1,480,000	2,144,000	7,072,000	690,000	32,323,000	1,842,000	44,071,000
Biosolids							
Dissolved Air Flotation Rehabilitation and Odor Control FOG Receiving	205,000					313,000	313,000
9. Digested Sludge Dewatering Facility	2,794,000	390,000	12,175,000	48,240,000	3,235,000	3,315,000	67,355,000
10. Digester and Thickener Facilities Upgrade	14,080,000	89,971,000	712,000	360,000	32,000	1,191,000	92,266,000
11. Lagoons and Drying Beds Retirement		443,000	1,158,000	112,000	2,022,000	659,000	4,394,000
Total Biosolids	17,079,000	90,804,000	14,045,000	48,712,000	5,289,000	5,478,000	164,328,000
Electrical Systems and Power Generation							
Plant Electrical Reliability	8,216,000						
12. Combined Heat and Power Equipment Repair and Rehabilitation	15,919,000	795,000	120,000				915,000

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	5-Year Total
Construction Projects							
Electrical Systems and Power Generation							
13. Energy Generation Improvements	26,912,000	15,000,000	42,018,000	28,282,000	1,400,000		86,700,000
Total Electrical Systems and Power Generation	51,047,000	15,795,000	42,138,000	28,282,000	1,400,000		87,615,000
Advanced Process Control & Automation							
14. Advanced Facility Control and Meter Replacement	3,526,000		4,350,000	23,730,000	1,051,000	193,000	29,324,000
15. Treatment Plant Distributed Control System	1,662,000	500,000	500,000	500,000	500,000		2,000,000
Total Advanced Process Control & Automation	5,188,000	500,000	4,850,000	24,230,000	1,551,000	193,000	31,324,000
Site Facility Maintenance and Improvements							
Plant Backup Water Supply	1,064,000						
Treatment Plant Engine Rebuild	660,000						
Treatment Plant Fire Main Replacement	2,041,000						
16. Construction-Enabling Improvements		3,476,000	76,000				3,552,000
17. Equipment Replacement	3,956,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
18. Facility Wide Water Systems Improvements	460,000	1,042,000	2,176,000	11,221,000	247,000	610,000	15,296,000
19. Plant Infrastructure Improvements	4,834,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
20. Plant Instrument Air System Upgrade	8,540,000		493,000	30,000			523,000
21. Support Building Improvements	490,000	400,000	219,000	4,738,000	806,000	10,192,000	16,355,000
22. Tunnel Rehabilitation	60,000	940,000	141,000	2,421,000	396,000	5,262,000	9,160,000

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	5-Year Total
<u>Construction Projects</u>							
Site Facility Maintenance and Improvements							
23. Urgent and Unscheduled Treatment Plant Rehabilitation	3,027,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
24. Yard Piping and Road Improvements	888,000	1,127,000	494,000	492,000	12,443,000	1,674,000	16,230,000
Total Site Facility Maintenance and Improvements	26,020,000	11,148,000	7,762,000	23,065,000	18,055,000	21,901,000	81,931,000
<u>South Bay Water Recycling</u>							
SBWR Extension	7,923,000						
SBWR Reservoir Facility	90,000						
25. SBWR System Reliability and Infrastructure Replacement	3,250,000	1,500,000					1,500,000
Total South Bay Water Recycling	11,263,000	1,500,000					1,500,000
Total Construction Projects	128,219,000	129,250,000	99,086,000	210,924,000	163,182,000	76,665,000	679,107,000
<u>Non-Construction</u>							
General Non-Construction							
Capital Program and Public Works Department Support Service Costs	692,000	789,000	797,000	805,000	814,000	823,000	4,028,000
Master Plan Updates			3,000,000				3,000,000
Plant Master Plan	125,000						
SBWR Master Plan	918,000						
SBWR Recycling Master Plan Reimbursement	243,000						

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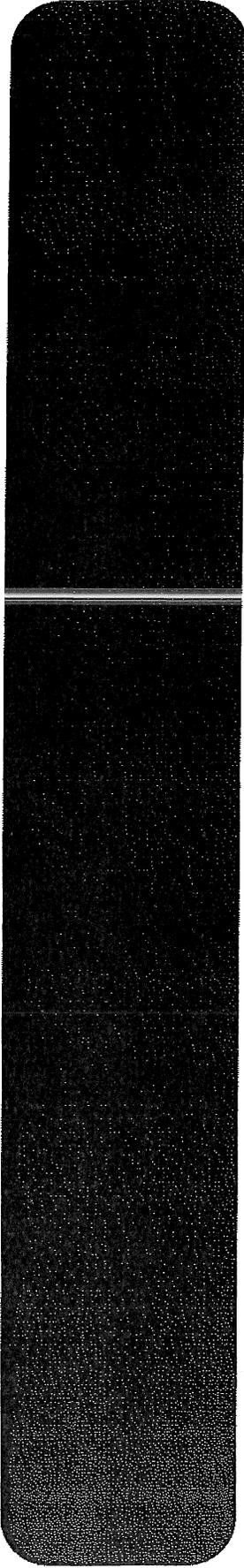
Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

<u>USE OF FUNDS (CONT'D.)</u>	<u>Estimated 2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>	<u>5-Year Total</u>
<u>Non-Construction</u>							
General Non-Construction							
Transfer to Clean Water Financing Authority Debt Service 2015-2016		1,556,000	1,643,000	109,464,000	55,692,000	48,108,000	216,463,000
Transfer to the Clean Water Financing Authority Debt Service Payment Fund	6,915,000	6,943,000	6,788,000	5,881,000	5,524,000	5,527,000	30,663,000
26. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
27. Preliminary Engineering	5,513,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
28. Program Management	14,332,000	10,065,000	8,125,000	1,845,000	1,605,000	1,670,000	23,310,000
29. Record Drawings	250,000		12,839,000	162,000	162,000	164,000	13,327,000
30. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	4,464,000	1,804,000		15,196,000
Total General Non-Construction	33,457,000	24,822,000	38,661,000	123,626,000	66,606,000	57,297,000	311,012,000
Contributions, Loans and Transfers to General Fund							
Transfer to the General Fund - Human Resources/Payroll/Budget Systems Upgrade	4,000	21,000					21,000
Total Contributions, Loans and Transfers to General Fund	4,000	21,000					21,000
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	96,000	145,000	151,000	157,000	169,000	169,000	791,000
Total Contributions, Loans and Transfers to Special Funds	96,000	145,000	151,000	157,000	169,000	169,000	791,000
Reserves							
Equipment Replacement Reserve		5,000,000					5,000,000
Total Reserves		5,000,000					5,000,000

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Use of Funds (Combined)

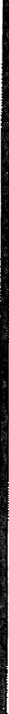
<u>USE OF FUNDS (CONT'D.)</u>	<u>Estimated 2014-2015</u>	<u>2015-2016</u>	<u>2016-2017</u>	<u>2017-2018</u>	<u>2018-2019</u>	<u>2019-2020</u>	<u>5-Year Total</u>
<u>Non-Construction</u>							
Total Non-Construction	33,557,000	29,988,000	38,812,000	123,783,000	66,775,000	57,466,000	316,824,000
Ending Fund Balance	96,359,357	18,573,357	25,233,357	28,929,357	39,512,357	44,682,357	44,682,357*
TOTAL USE OF FUNDS	<u>258,135,357</u>	<u>177,811,357</u>	<u>163,131,357</u>	<u>363,636,357</u>	<u>269,469,357</u>	<u>178,813,357</u>	<u>1,040,613,357*</u>

* The 2015-2016 through 2018-2019 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.



2015-2016 CAPITAL BUDGET

2016-2020 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 2015-2016. The Detail of Non-Construction Projects section is abbreviated and provides information on the individual non-construction project, with funding in 2015-2016. On the Use of Funds statement, these projects are numbered.

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

1. Headworks 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. 2015
Council District:	4	Revised Completion Date:	3rd Qtr. 2020
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	161	2,098	2,098		369				369		2,628
Design		322	322		1,798	311			2,109		2,431
Bid & Award		78	78		30	148			178		256
Construction		24	24	1,836	504	21,552	944	170	25,006		25,030
Post Construction		14	14		62			121	183		197
TOTAL	161	2,536	2,536	1,836	2,763	22,011	944	291	27,845		30,542

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	161	2,536	2,536	1,836	2,763	22,011	944	291	27,845		30,542
TOTAL	161	2,536	2,536	1,836	2,763	22,011	944	291	27,845		30,542

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. This project will have Close-Out costs only in 2020-2021.

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

2. New Headworks

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. 2022
Location:	Water Pollution Control Plant		

Description: This project will construct a new headworks to serve as the Plant's duty headworks. It also involves increasing the equalization basin volume and installing lining and spraydown systems to facilitate cleaning. The project will also install new covers over select areas, such as junction boxes and grit collection, for odor control. New conduits will be installed for the collected foul air, and a new odor treatment facility that could combine biological and/or chemical treatment technology will be provided.

Justification: The original headworks, 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, 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	331	2,917	2,917	1,711	469				2,180		5,428
Design					7,384	801	160		8,345		8,345
Bid & Award					300				300		300
Construction					2,212		75,058	1,799	79,069	2,599	81,668
Post Construction					150				150	135	285
TOTAL	331	2,917	2,917	1,711	10,515	801	75,218	1,799	90,044	2,734	96,026

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	331	2,917	2,917	1,711	10,515	801	75,218	1,799	90,044	2,734	96,026
TOTAL	331	2,917	2,917	1,711	10,515	801	75,218	1,799	90,044	2,734	96,026

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.

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

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

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2009
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	3rd Qtr. 2010
Department:	Environmental Services	Initial Completion Date:	4th Qtr. 2012
Council District:	4	Revised Completion Date:	4th Qtr. 2025
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	30			1,636	691	295			2,622		2,652
Design						9,411	1,211		10,622		10,622
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			1,636	691	10,841	22,176	686	36,030	77,144	113,204

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	30			1,636	691	10,841	22,176	686	36,030	77,144	113,204
TOTAL	30			1,636	691	10,841	22,176	686	36,030	77,144	113,204

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	Appn. #:	7226
Initial Project Budget:	\$3,605,000	USGBC LEED:	N/A

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

4. Iron Salt Feed Station

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2010
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	1st Qtr. 2012
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2012
Council District:	4	Revised Completion Date:	3rd Qtr. 2017
Location:	Water Pollution Control Plant		

Description: This project constructs a permanent iron salt and polymer dosing station, including a concrete containment structure and ancillary pumping, piping, and instrumentation to deliver chemical solution to incoming wastewater.

Justification: The addition of iron salts and polymer to incoming wastewater will improve Plant operation by enhancing the sludge settling in the primary clarifiers, reducing corrosion and odor, 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	99	1	1								100
Design	42	1,420	1,420								1,462
Bid & Award		22	22	10					10		32
Construction		3,417	3,417	1,690	380				2,070		5,487
Post Construction					112				112		112
TOTAL	141	4,860	4,860	1,700	492				2,192		7,193

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	141	4,860	4,860	1,700	492				2,192		7,193
TOTAL	141	4,860	4,860	1,700	492				2,192		7,193

ANNUAL OPERATING BUDGET IMPACT (000'S)

Cost Offset	(236)	(999)	(1,059)	(1,122)							
Maintenance	56	233	243	252							
Operating	425	1,883	1,992	2,109							
TOTAL				245	1,117	1,176	1,239				

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.

Notes:

This project corresponds to Plant Master Plan Project No. 14 and Validation Project PLP-01. The schedule was revised during the 2015-2019 project validation process. This project will have Close-Out costs only in 2017-2018.

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

5. Aeration Tanks and Blower Rehabilitation

CSA:	Environmental and Utility Services	Initial Start Date:	1st Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	3rd Qtr. 2025
Council District:	4	Revised Completion Date:	1st Qtr. 2029
Location:	Water Pollution Control Plant		

Description: This project rehabilitates the secondary and nitrification aeration tanks including structural, mechanical, electrical, and instrumentation upgrades. It also replaces the existing coarse bubble diffusers with fine bubble diffusers, installs partition walls, and reconfigures air piping to optimize process treatment capabilities. The project will also install variable frequency drives (VFDs) to the electric driven blowers in Building 40 and decommission the engine drive blowers in the Secondary Blower Building. It will also replace the S11 switchgear and install VFDs on the nitrification blowers. A condition assessment study, aeration assessment, and process modeling 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 running on emergency power. Lastly, the S11 switchgear is outdated and needs to be upgraded to be compatible with the new VFDs.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		1,580	1,580	435	492	41			968		2,548
Design						9,645	1,163		10,808		10,808
Bid & Award						146	48	25	219		219
Construction						873		22,131	23,004	81,392	104,396
Post Construction										1,326	1,326
TOTAL		1,580	1,580	435	492	10,705	1,211	22,156	34,999	82,718	119,297

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		1,580	1,580	435	492	10,705	1,211	22,156	34,999	82,718	119,297
TOTAL		1,580	1,580	435	492	10,705	1,211	22,156	34,999	82,718	119,297

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	Appn. #:	7677
Initial Project Budget:	\$114,880,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

6. Nitrification Clarifier Rehabilitation

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2009
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2024
Council District:	4	Revised Completion Date:	2nd Qtr. 2022
Location:	Water Pollution Control Plant		

Description: This project includes phased rehabilitation of the 16 nitrification clarifiers. Structural improvements may include but are not limited to concrete repairs and coating, new clarifier mechanisms and baffle installations, pipe support and meter vault replacements, and walkway improvements. Mechanical improvements may include but are not limited to 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 but are not limited to 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	1,146	3,300	3,300		1,050				1,050		5,496
Design	18				4,711				4,711		4,729
Bid & Award					50	80			130		130
Construction				1,250	40,512		213	213	42,188	426	42,614
Post Construction				100					100	113	213
TOTAL	1,164	3,300	3,300		7,161	40,592	213	213	48,179	539	53,182

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,164	3,300	3,300		7,161	40,592	213	213	48,179	539	53,182
TOTAL	1,164	3,300	3,300		7,161	40,592	213	213	48,179	539	53,182

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.

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. However, funding in 2015-2016 was not programmed for this project in order to align project timing and prioritization with staffing resources. Prior to 2016-2020, this project was titled "Secondary and Nitrification Clarifier Rehabilitation".

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

7. Filter Rehabilitation

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2011
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	3rd Qtr. 2013
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2013
Council District:	4	Revised Completion Date:	2nd Qtr. 2022
Location:	Water Pollution Control Plant		

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 to be completed in summer 2016, which will determine whether to fully refurbish the filter facility or keep it operational until a new filter complex is built.

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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	3	490	490	1,061	598				1,659		2,152
Design	117	22	22		3,568	425			3,993		4,132
Bid & Award	2	1	1		25	56			81		84
Construction	1	591	591		1,500		25,201	240	26,941	116	27,649
Post Construction		49	49		50				50	104	203
TOTAL	123	1,153	1,153	1,061	5,741	481	25,201	240	32,724	220	34,220

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	123	1,153	1,153	1,061	5,741	481	25,201	240	32,724	220	34,220
TOTAL	123	1,153	1,153	1,061	5,741	481	25,201	240	32,724	220	34,220

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 31 and 32 and Validation Project PLF-01. 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	Appn. #:	7227
Initial Project Budget:	\$3,506,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

8. Outfall Bridge and Levee Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2014
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2019
Council District:	4	Revised Completion Date:	4th Qtr. 2020
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		300	300	1,083	61				1,144		1,444
Design					843	209	61		1,113		1,113
Bid & Award					28		25		53		53
Construction					343		6,383	320	7,046	67	7,113
Post Construction					56				56	49	105
TOTAL		300	300	1,083	1,331	209	6,469	320	9,412	116	9,828

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	300	300	1,083	1,331	209	6,469	320	9,412	116	9,828
TOTAL	300	300	1,083	1,331	209	6,469	320	9,412	116	9,828

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	Appn. #:	7678
Initial Project Budget:	\$8,120,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

9. Digested Sludge Dewatering Facility

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	2nd Qtr. 2014
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2013
Council District:	4	Revised Completion Date:	3rd Qtr. 2020
Location:	Water Pollution Control Plant		

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. The size, type, design, and technology selected for the new biosolids dewatering facility will depend on an engineering study currently underway that looks at siting, available technologies, and an evaluation of capital and operational costs for various alternatives. All new mechanical dewatering units, feed tank, storage, conveyance, and chemical dosing facilities will be housed in an odor-controlled building.

Justification: The adopted Plant Master Plan recommends consolidating the Plant's operational area by reducing the biosolids process footprint. This project responds to this recommendation. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	527	2,794	2,794	390	1,490				1,880		5,201
Design					5,630	1,080			6,710		6,710
Bid & Award					312	200			512		512
Construction					4,270	46,960	3,235	3,115	57,580		57,580
Post Construction					473			200	673	200	873
TOTAL	527	2,794	2,794	390	12,175	48,240	3,235	3,315	67,355	200	70,876

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	527	2,794	2,794	390	12,175	48,240	3,235	3,315	67,355	200	70,876
TOTAL	527	2,794	2,794	390	12,175	48,240	3,235	3,315	67,355	200	70,876

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance	234
Operating	2,222
TOTAL	2,456

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.

Notes:

This project corresponds to Plant Master Plan Project Nos. 44, 54, 57-60, and 64 and Validation Project PS-03. The Expenditure Schedule is based on the design/build estimate. 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	Appn. #:	7452
Initial Project Budget:	\$1,000,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

10. Digester and Thickener Facilities Upgrade

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2006
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2008
Council District:	4	Revised Completion Date:	4th Qtr. 2025
Location:	Water Pollution Control Plant		

Description: This project will rehabilitate up to ten anaerobic digesters through a phased approach. This first phase rehabilitates four digesters. The project also rehabilitates and modifies six dissolved air flotation units, pressure saturation tanks, pipes, pumps, and ancillary equipment. A new odor control system, blending tank, 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.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	669	113	113					1,191	1,191	389	2,362
Design	1,844	13,887	13,887	313					313	6,386	22,430
Bid & Award	1	80	80							117	198
Construction	1			89,658	712	344			90,714	55,753	146,468
Post Construction						16	32		48	639	687
TOTAL	2,515	14,080	14,080	89,971	712	360	32	1,191	92,266	63,284	172,145

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	2,515	14,080	14,080	89,971	712	360	32	1,191	92,266	63,284	172,145
TOTAL	2,515	14,080	14,080	89,971	712	360	32	1,191	92,266	63,284	172,145

ANNUAL OPERATING BUDGET IMPACT (000'S)

Maintenance				11	11
Operating				598	623
TOTAL				609	634

Major Changes in Project Cost:

2008-2012 CIP-increase of \$1.6M based on revised estimates. 2009-2013 CIP-increase of \$84.0M due to increased scope. 2010-2014 CIP-increase of \$11.5M due to inclusion of digester gas line replacement. 2011-2015 CIP-decrease of \$34.0M due to decrease in the number of digesters. 2012-2016 CIP-decrease of \$23.2M due to realignment of project. 2013-2017 CIP-increase of \$24.2M due to revision of estimation methodology. 2014-2018 CIP-increase of \$57.3M to align with the Master Plan recommendation. 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.

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	Appn. #:	4127
Initial Project Budget:	\$1,000,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

11. Lagoons and Drying Beds Retirement

CSA:	Environmental and Utility Services	Initial Start Date:	1st Qtr. 2016
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2025
Council District:	4	Revised Completion Date:	2nd Qtr. 2028
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development				443	1,158	112	111		1,824		1,824
Design							1,363	649	2,012	182	2,194
Bid & Award							42	10	52	12	64
Construction							298		298	29,638	29,936
Post Construction							208		208	156	364
TOTAL				443	1,158	112	2,022	659	4,394	29,988	34,382

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	443	1,158	112	2,022	659	4,394	29,988	34,382
TOTAL	443	1,158	112	2,022	659	4,394	29,988	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

Appn. #:

Initial Project Budget: \$34,382,000

USGBC LEED:

N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

12. Combined Heat and Power Equipment Repair and Rehabilitation

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:** 3rd Qtr. 2016
Location: Water Pollution Control Plant

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.

Justification: A reliable supply of digester gas will be a key input to the Plant's new cogeneration facility. The existing gas compressors are more than 30 years old and increasingly unreliable and difficult to maintain. The existing digester gas holder was built in 1984 and is currently out of service. Rehabilitating these systems is critical to safely and efficiently manage the Plant's valuable digester gas.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	3										3
Design	677	140	140								817
Bid & Award	85										85
Construction	29	15,779	15,779	745				745			16,553
Post Construction	1			50	120			170			171
TOTAL	795	15,919	15,919	795	120			915			17,629

FUNDING SOURCE SCHEDULE (000'S)										
San José-Santa Clara Treatment Plant Capital Fund	795	15,919	15,919	795	120			915		17,629
TOTAL	795	15,919	15,919	795	120			915		17,629

ANNUAL OPERATING BUDGET IMPACT (000'S)										
Operating					4	4	4	4		
TOTAL					4	4	4	4		

Major Changes in Project Cost:

2014-2018 CIP - increase of \$8.2 million due to addition of new projects (Digester Gas Compressor Upgrade and Digester Gas Holding Tank Upgrade).

2015-2019 CIP - increase of \$600,000 due to increased engineer's estimate for Digester Gas Compressor Upgrade project.

2016-2020 CIP - increase of \$5.7 million due to higher than expected construction costs for Digester Gas Compressor Upgrade project.

Notes:

This project corresponds to Validation Projects PE-03 and PE-04. The schedule was revised during the 2015-2019 project validation process.

FY Initiated: 2012-2013 **Appn. #:** 7453
Initial Project Budget: \$3,200,000 **USGBC LEED:** N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

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:	1st Qtr. 2019
Location:	Water Pollution Control Plant		

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. The emergency diesel generators will start operation in 2016-2017 and will have associated maintenance and operating costs.

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development	1,270	679	679								1,949
Design	461	330		5,080	2,885	120			8,085		8,546
Bid & Award	87	362	200	20					20		307
Construction	1	40,541	26,033	9,900	38,660	28,162	1,150		77,872		103,906
Post Construction					473		250		723		723
TOTAL	1,819	41,912	26,912	15,000	42,018	28,282	1,400		86,700		115,431

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	1,819	41,912	26,912	15,000	42,018	28,282	1,400		86,700		115,431
TOTAL	1,819	41,912	26,912	15,000	42,018	28,282	1,400		86,700		115,431

ANNUAL OPERATING BUDGET IMPACT (000'S)											
Cost Offset									(9,884)	(10,115)	
Maintenance					37	38			(2,442)	(2,469)	
Operating					40	41			7,058	7,415	
TOTAL					77	79			(5,268)	(5,169)	

Major Changes in Project Cost:

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

15. Treatment Plant Distributed Control System

CSA: Environmental and Utility Services **Initial Start Date:** 1st Qtr. 2012
CSA Outcome: Reliable Utility Infrastructure **Revised Start Date:**
Department: Environmental Services **Initial Completion Date:** 2nd Qtr. 2016
Council District: 4 **Revised Completion Date:** 2nd Qtr. 2019
Location: Water Pollution Control Plant

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.

Justification: The current control system is outdated and will no longer be supported by the vendor beginning in 2015. Upgrading the system is vital to maintaining efficient operations and improving monitoring capabilities.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Design	253	75	75	75	75	75	75		300		628
Construction	1,380	1,693	1,587	425	425	425	425		1,700		4,667
TOTAL	1,633	1,768	1,662	500	500	500	500		2,000		5,295

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,633	1,768	1,662	500	500	500	500		2,000		5,295
TOTAL	1,633	1,768	1,662	500	500	500	500		2,000		5,295

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.

Notes:

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

16. Construction-Enabling Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	4th Qtr. 2016
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Design			520						520		520
Bid & Award			65						65		65
Construction			2,891	21					2,912		2,912
Post Construction				55					55		55
TOTAL			3,476	76					3,552		3,552

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	3,476	76	3,552	3,552
TOTAL	3,476	76	3,552	3,552

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

FY Initiated: 2015-2016
Initial Project Budget: \$3,552,000

Appn. #:
USGBC LEED: N/A

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

18. Facility Wide Water Systems Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2014
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	1st Qtr. 2022
Council District:	4	Revised Completion Date:	3rd Qtr. 2020
Location:	Water Pollution Control Plant		

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, and code compliance requirements. In addition, changes to water uses and demands have not 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 damage to pumping equipment.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		460	460	1,017					1,017		1,477
Design				25	2,176	283			2,484		2,484
Bid & Award						126			126		126
Construction						10,812	247	436	11,495		11,495
Post Construction								174	174		174
TOTAL		460	460	1,042	2,176	11,221	247	610	15,296		15,756

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	460	460	1,042	2,176	11,221	247	610	15,296		15,756
TOTAL	460	460	1,042	2,176	11,221	247	610	15,296		15,756

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 2020-2021.

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

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

20. Plant Instrument Air System Upgrade

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2014
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	1st Qtr. 2019
Council District:	4	Revised Completion Date:	1st Qtr. 2018
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		278	278								278
Design		731	731								731
Bid & Award		190	190								190
Construction		7,316	7,316		493				493		7,809
Post Construction		25	25			30			30		55
TOTAL		8,540	8,540		493	30			523		9,063

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	8,540	8,540		493	30			523		9,063
TOTAL	8,540	8,540		493	30			523		9,063

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - decrease of \$37,000 due to revised cost estimate.

Notes:

This project corresponds to Validation Project PF-07. Funding in 2015-2016 was not programmed for this project in order to align project timing and prioritization with staffing resources.

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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

21. Support Building Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	1st Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	3rd Qtr. 2023
Council District:	4	Revised Completion Date:	4th Qtr. 2026
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		490	490	400	219	101			720		1,210
Design						4,095	806	29	4,930		4,930
Bid & Award						67		34	101		101
Construction						475		10,129	10,604	37,333	47,937
Post Construction										556	556
TOTAL		490	490	400	219	4,738	806	10,192	16,355	37,889	54,734

FUNDING SOURCE SCHEDULE (000'S)											
Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
San José-Santa Clara Treatment Plant Capital Fund		490	490	400	219	4,738	806	10,192	16,355	37,889	54,734
TOTAL		490	490	400	219	4,738	806	10,192	16,355	37,889	54,734

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	Appn. #:	7681
Initial Project Budget:	\$55,590,000	USGBC LEED:	N/A

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Construction Projects

22. Tunnel Rehabilitation

CSA:	Environmental and Utility Services	Initial Start Date:	2nd Qtr. 2015
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	4th Qtr. 2024
Council District:	4	Revised Completion Date:	3rd Qtr. 2026
Location:	Water Pollution Control Plant		

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.

Justification: The Plant has an extensive tunnel system that houses piping, valves, pumps, controls, and other equipment. Many of these tunnels were built more than 50 years ago and need to be rehabilitated and upgraded to ensure compliance with safety requirements. To the extent practical, obsolete piping in the tunnels should also be removed to improve maintenance access and make room for new process piping.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		60	60	940	141	68			1,149		1,209
Design						2,088	384		2,472		2,472
Bid & Award						33	12	5	50		50
Construction						232		5,257	5,489	18,222	23,711
Post Construction										277	277
TOTAL		60	60	940	141	2,421	396	5,262	9,160	18,499	27,719

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		60	60	940	141	2,421	396	5,262	9,160	18,499	27,719
TOTAL		60	60	940	141	2,421	396	5,262	9,160	18,499	27,719

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2016-2020 CIP - increase of \$2.2 million due to escalation of construction costs.

Notes:

This project corresponds to Plant Master Plan Project Nos. 12, 13, 46, 103, and 104 and Validation Project PF-01.

FY Initiated:	2014-2015	Appn. #:	7698
Initial Project Budget:	\$25,550,000	USGBC LEED:	N/A

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

24. Yard Piping and Road Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	Ongoing
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	Ongoing
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		362	362	1,127	494	492	10		2,123		
Design		1	1				11,079	1,602	12,681		
Bid & Award		1	1				166	72	238		
Construction		514	514				1,188		1,188		
Post Construction		10	10								
TOTAL		888	888	1,127	494	492	12,443	1,674	16,230		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	888	888	1,127	494	492	12,443	1,674	16,230
TOTAL	888	888	1,127	494	492	12,443	1,674	16,230

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

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Construction Projects

25. SBWR System Reliability and Infrastructure Replacement

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2012
CSA Outcome:	Safe, Reliable, and Sufficient Water Supply	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2016
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

Description: This allocation will be used for system reliability improvements including, but not limited to, rehabilitation and/or replacement of pump station components (pumps, motors, and ancillary equipment), control and communication systems, pipelines, and other system-related infrastructure.

Justification: This project improves system reliability, addresses critical infrastructure needs, and ensures the integrity and reliability of the distribution system.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Design	18										18
Construction	115	3,250	3,250	1,500					1,500		4,865
TOTAL	133	3,250	3,250	1,500					1,500		4,883
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	133	3,250	3,250	1,500					1,500		4,883
TOTAL	133	3,250	3,250	1,500					1,500		4,883
ANNUAL OPERATING BUDGET IMPACT (000'S)											
None											

Major Changes in Project Cost:

2015-2019 CIP - decrease of \$1.1 million due to reduction of scope.
2016-2020 CIP - decrease of \$505,000 due to reduction of scope.

Notes:

FY Initiated:	2012-2013	Appn. #:	7455
Initial Project Budget:	\$6,500,000	USGBC LEED:	N/A

Water Pollution Control

2016-2020 Proposed Capital Improvement Program Detail of Non-Construction Projects

26. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	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

27. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development		5,513	5,513	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		5,513	5,513	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		5,513	5,513	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		5,513	5,513	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

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Non-Construction Projects

28. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development Program Management		14,332	14,332	10,065	8,125	1,845	1,605	1,670	23,310		
TOTAL		14,332	14,332	10,065	8,125	1,845	1,605	1,670	23,310		

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		14,332	14,332	10,065	8,125	1,845	1,605	1,670	23,310		
TOTAL		14,332	14,332	10,065	8,125	1,845	1,605	1,670	23,310		

Notes:
 Selected budget information is not provided due to the ongoing nature of this project.
Appn. #: 7481

29. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Development Post Construction		250	250		58	12,781	162	162	164	58	13,519
TOTAL		250	250		12,839	162	162	164	13,327		13,577

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		250	250		12,839	162	162	164	13,327		13,577
TOTAL		250	250		12,839	162	162	164	13,327		13,577

Notes:
 This project corresponds to Plant Master Plan Project No. 114 and Validation Project PF-05. Funding in 2016-2017 is for the consultant encumbrance and some staff costs; the remaining years of this project fund staff costs necessary to complete the project.
Appn. #: 7683

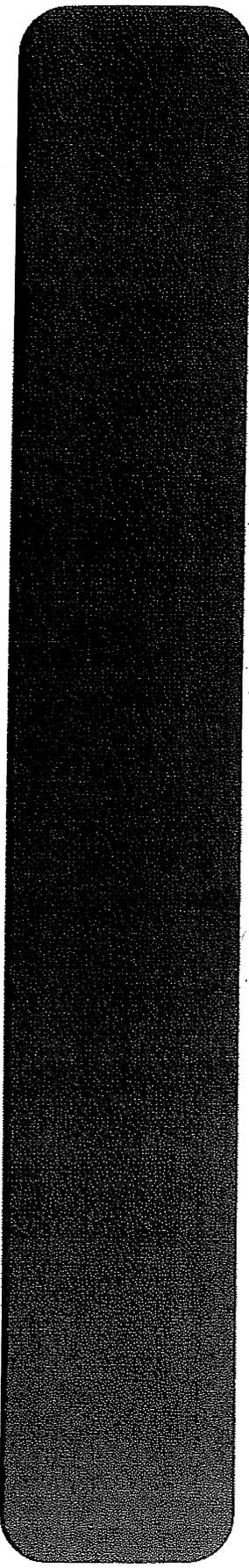
Water Pollution Control
2016-2020 Proposed Capital Improvement Program
Detail of Non-Construction Projects

30. 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	2014-15 Appn.	2014-15 Estimate	2015-16	2016-17	2017-18	2018-19	2019-20	5-Year Total	Beyond 5-Year	Project Total
Debt Service	67,654	4,464	4,464	4,464	4,464	4,464	1,804		15,196		87,314
TOTAL	67,654	4,464	4,464	4,464	4,464	4,464	1,804		15,196		87,314
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	67,654	4,464	4,464	4,464	4,464	4,464	1,804		15,196		87,314
TOTAL	67,654	4,464	4,464	4,464	4,464	4,464	1,804		15,196		87,314

Appn. #: 6590



2015-2016 CAPITAL BUDGET

2016-2020 CAPITAL IMPROVEMENT PROGRAM

WATER POLLUTION CONTROL

SUMMARY OF PROJECTS THAT
START AFTER 2015-2016

SUMMARY OF RESERVES

EXPLANATION OF FUNDS

FLOW AND PRIORITY OF FUNDS

The Summary of Projects that Start after 2015-2016 includes those projects that have funding budgeted starting after 2015-2016. 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.

Water Pollution Control

2016-2020 Proposed Capital Improvement Program

Summary of Projects that Start after 2015-2016

Project Name:	Aeration Basin Future Modifications	Initial Start Date:	3rd Qtr. 2019
5-Year CIP Budget:	\$846,000	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:	Alternative Filter Technology Field Verification	Initial Start Date:	3rd Qtr. 2019
5-Year CIP Budget:	\$81,000	Revised Start Date:	
Total Budget:	\$3,258,000	Initial End Date:	3rd Qtr. 2024
Council District:	4	Revised End Date:	
USGBC LEED:	N/A		

Description: The Plant has several filtration options to achieve NPDES permit compliance. One approach is to rehabilitate the existing filters. Another approach is to replace existing dual-membrane filters with alternative technology, such as disk filters. This project will field test and verify up to three filtration technologies to determine the alternative most suitable for the needs of the Plant's secondary effluent, for both Bay discharge and recycled water supply.

Project Name:	FOG Receiving	Initial Start Date:	3rd Qtr. 2019
5-Year CIP Budget:	\$313,000	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 digesters accepting FOG, and a ½-mile of access road improvements.

Project Name:	Final Effluent Pump Station & Stormwater Channel Improvements	Initial Start Date:	3rd Qtr. 2019
5-Year CIP Budget:	\$902,000	Revised Start Date:	
Total Budget:	\$47,358,000	Initial End Date:	3rd Qtr. 2025
Council District:	4	Revised End Date:	
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.

Water Pollution Control

2016-2020 Proposed Capital Improvement Program

Summary of Projects that Start after 2015-2016

Project Name:	Master Plan Updates	Initial Start Date:	4th Qtr. 2016
5-Year CIP Budget:	\$3,000,000	Revised Start Date:	
Total Budget:	\$3,000,000	Initial End Date:	4th Qtr. 2018
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:	\$952,000	Revised Start Date:	
Total Budget:	\$56,977,000	Initial End Date:	1st Qtr. 2027
Council District:	4	Revised End Date:	4th Qtr. 2027
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:	Secondary Clarifier Rehabilitation	Initial Start Date:	1st Qtr. 2017
5-Year CIP Budget:	\$25,881,000	Revised Start Date:	
Total Budget:	\$26,559,000	Initial End Date:	2nd Qtr. 2020
Council District:	4	Revised End Date:	4th Qtr. 2021
USGBC LEED:	N/A		

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.

Water Pollution Control
2016-2020 Proposed Capital Improvement Program
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.

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Water Pollution Control

2016-2020 Proposed Capital Improvement Program

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.



Memorandum

**TO: TREATMENT PLANT ADVISORY
COMMITTEE**

FROM: Kerrie Romanow

**SUBJECT: 2015-2016 PROPOSED
OPERATING BUDGET**

DATE: May 7, 2015

Approved

Date

This memorandum serves to transmit the San José/Santa Clara Regional Wastewater Facility Proposed 2015-2016 Operating and Maintenance Budget. The Proposed Operating and Maintenance Budget is provided to the Treatment Plant Advisory Committee for review and for recommendation to the San José City Council for approval.

/s/

KERRIE ROMANOW
Director, Environmental Services

If you should have any questions, please contact Ashwini Kantak at 408-975-2553.

PROPOSED

SAN JOSE / SANTA CLARA

WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San José, California 95134

2015-2016

Operating & Maintenance Budget

Submitted by
Kerrie Romanow, Director
Environmental Services Department
City of San José

TO: Treatment Plant Advisory Committee

Jamie Matthews
Sam Liccardo
Pat Kolstad
Jose Esteves
Steven Leonardis
John M. Gatto
David Sykes
Pierluigi Oliverio
Marjorie Matthews

(Chair) Mayor, City of Santa Clara
(Vice Chair) Mayor, City of San José
Councilmember, City of Santa Clara
Mayor, City of Milpitas
Board Member, West Valley Sanitation District
Board Member, Cupertino Sanitation District
Assistant City Manager (Int), City of San José
Councilmember, City of San José
Councilmember, City of San José

**SAN JOSE / SANTA CLARA
WATER POLLUTION CONTROL PLANT**

700 Los Esteros Road
San José, California 95134

2015-2016

PROPOSED

Operating & Maintenance Budget

Environmental Services Department
City of San José

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

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San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

BUDGET SUMMARY

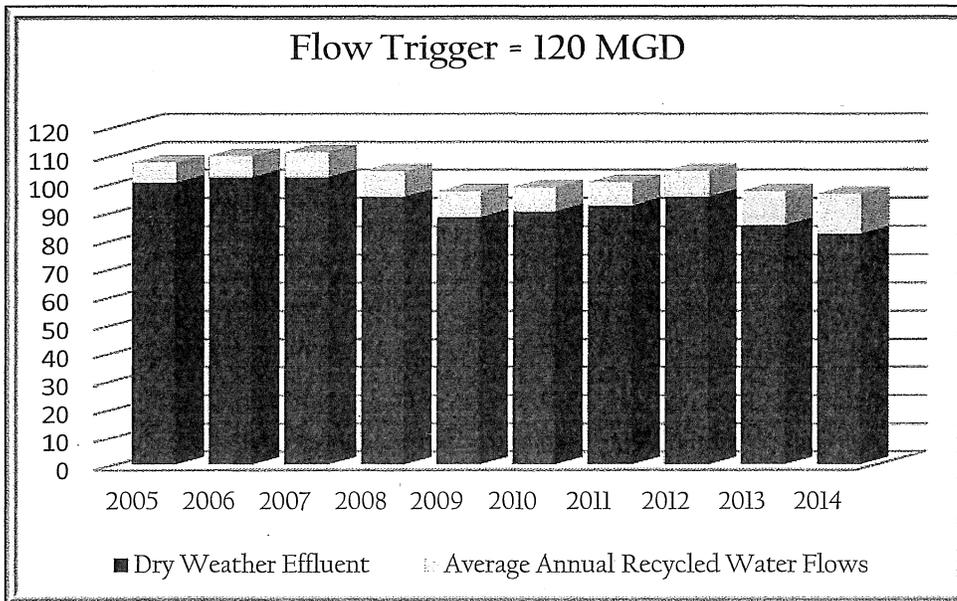
	Adopted 14-15	Proposed 15-16	% Change
Treatment Plant Operating Fund Budget	91,904,551	93,462,052	1.7%
ESD Authorized Positions	354.15	363.10	2.5%

BUDGET HIGHLIGHTS 2015-2016

- Additional staffing resources are recommended to assist the Plant Capital Improvement Program
- Additional funding is recommended to support preventative maintenance projects Plant-wide
- Additional funding is recommended for large, one-time repair and replacement projects
- Additional funding is recommended for engineering support services



**10 year History of Average Dry Weather Flow
(in millions of gallons per day)**



San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

**TREATMENT PLANT OPERATING FUND
 BUDGET SUMMARY**

Budget Summary	2013-14	2014-15	2015-16	2015-16
	Actual Expenses	Adopted Budget	Base Budget	Proposed Budget
Personal Services	41,997,418	49,018,690	49,801,602	50,574,575
Non-personal Expenses	26,353,666	29,887,798	29,103,570	29,912,570
Equipment	393,013	1,450,000	900,000	1,750,000
Inventory	341,147	400,000	400,000	400,000
Department Expenses	69,085,244	80,756,488	80,205,172	82,637,145
Overhead	8,380,904	8,000,024	7,478,317	7,478,317
City Hall Debt Service	464,076	1,092,295	1,121,240	1,121,240
Workers' Compensation	483,194	645,000	645,000	645,000
City Services	1,079,524	1,410,744	1,580,350	1,580,350
City Expenses	10,407,698	11,148,063	10,824,907	10,824,907
TOTAL EXPENSES	\$ 79,492,942	\$ 91,904,551	\$ 91,030,079	\$ 93,462,052

ESTIMATED COST DISTRIBUTION

2015-16 Estimated Total Gallons Treated (MG)	(1) Percent of Total Sewage Treated	City / District	2015-16 Proposed
25,421.534	65.127	City of San Jose	\$60,869,032
5,214.087	13.719	City of Santa Clara	\$12,822,059
30,635.621	78.846	Sub-Total	\$73,691,091
3,501.616	9.101	West Valley Sanitation District	\$8,505,980
1,911.380	5.096	Cupertino Sanitary District	\$4,762,826
2,239.390	5.809	City of Milpitas	\$5,429,211
347.827	0.921	Sanitation District # 2 - 3	\$860,785
85.897	0.227	Burbank Sanitary District	\$212,159
8,086.110	21.154	Sub-Total	\$19,770,961
38,721.731	100.0	TOTAL	\$93,462,052

(1) Composite of four parameters (flow, BOD, SS, ammonia). Source: 2015-16 Revenue Program.

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

OVERVIEW

This year's Water Pollution Control Plant Operating Budget recommends a 1.7% increase over the 2014-2015 Adopted Operating Budget. This increase is largely due to increased staffing in support of the capital improvement program, pension, and non-personal/equipment costs.

With the adoption of the Plant Master Plan (PMP) in 2013 by the San José and Santa Clara City Councils, over \$2.1 billion in long-term capital improvement projects were identified to upgrade and rebuild the San José/Santa Clara Water Pollution Control Plant (Plant) over the next 30 years. A validation process was completed in February 2014 to update and prioritize the recommended PMP projects into 33 construction packages to inform the five-year Capital Improvement Program (CIP) and ten-year funding strategy. Based on the validation process, the ten-year CIP is estimated at approximately \$1.4 billion. A CIP of this size and complexity requires significant resources in order to ensure successful and timely project delivery. In September 2013, Council approved a program management services consultant contract with MWH Americas, Inc. to assist with the overall set-up and management of the CIP, which has more than doubled in size as compared to previously adopted budgets. In 2014-2015, four positions were added at the Plant to support the implementation of capital improvement projects. An additional 23 full-time positions were recommended in the 2015-2016 Proposed Operating Budget, released on May 1, 2015, to support ramp-up in capital implementation activities and prepare for the transition out of the program management contract in three to five years. Currently, there are eight projects in active construction totaling more than \$34 million, with an additional 25 projects progressing through the various phases of feasibility and development, design, and/or bid and award. The size of the projects already underway, or set to initiate in the ten-year timeframe range from \$5 million to \$120 million.

The Plant and the Environmental Services Department continue to focus significant efforts on attracting qualified technical and engineering professionals to fill key O&M position vacancies, as well support the implementation of the CIP. The Plant has seen significant improvements in the vacancy rate for several key groups. For example, the vacancy rate for the Plant CIP/Engineering Services group has improved from 27% in July 2014 to 12% as of May 2015.

Retirement (Pension) costs continue to rise on an annual basis, as detailed in the City's 2016-2020 Five-Year Economic Forecast and Revenue Projections, due to continuing actions to fund required retirement contributions, combined with the assumption to fully fund retiree healthcare benefits. These increased costs are partially offset by the impact of new employees entering into the City of San José's Tier 2 plans, which are lower in costs to the City than Tier 1 plans.

Chemical expenditures have tracked lower than budgeted levels over the past year due to the conversion from gaseous to liquid disinfection. With this, the Treatment Plant O&M Program is able to reduce the base chemical budget for 2015-2016.

Additional funding for safety improvements, equipment, consultant services, and preventative maintenance programs are also included in this proposed budget. The following sections provide the budget proposal descriptions and a breakdown by program of all associated expenditures and detail-specific budgets.

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

OVERVIEW CONTINUED

DEPARTMENT BUDGET SUMMARY

Budget Summary	2013-14 Actual 1	2014-15 Adopted 2	2015-16 Forecast 3	2015-16 Proposed 4	% Change (2 to 4)
Dollars by Program					
Treatment Plant O&M	47,783,763	54,369,984	53,604,534	55,112,638	1.4%
Watershed Protection	8,285,787	10,352,859	10,564,635	10,564,635	2.0%
South Bay Water Recycling	3,409,217	4,339,166	4,363,990	4,363,990	0.6%
CIP-Engineering Services	2,005,699	3,519,741	3,339,573	4,270,970	21.3%
Mgmt & Admin Svcs	4,716,160	4,380,625	4,700,275	4,700,275	7.3%
Environmental Compliance & Safety	1,635,054	2,141,690	1,999,277	1,999,277	(6.6%)
Office of Sustainability	690,494	889,590	866,922	859,394	(3.4%)
Communications	559,071	762,833	765,966	765,966	0.4%
Total	\$ 69,085,244	\$ 80,756,488	\$ 80,205,172	\$ 82,637,145	2.3%
Personal Services					
Salaries	24,060,554	27,977,150	28,335,208	28,823,160	3.0%
Pension	12,075,491	15,578,379	16,227,659	16,435,975	5.5%
Medical	3,761,356	4,811,495	4,587,069	4,663,774	(3.1%)
Overtime	2,100,017	651,666	651,666	651,666	0.0%
Subtotal	\$ 41,997,418	\$ 49,018,690	\$ 49,801,602	\$ 50,574,575	3.2%
Non-Personal/Equipment					
Energy	6,014,704	6,730,000	6,800,000	6,800,000	1.0%
Supplies & Materials	6,068,933	4,688,020	4,539,118	5,038,118	7.5%
Chemicals	1,728,042	2,655,000	2,155,000	2,155,000	(18.8%)
Contractual Services	9,671,308	11,639,740	11,727,229	11,977,229	2.9%
All Others	3,604,839	6,025,038	5,182,223	6,092,223	1.1%
Subtotal	\$ 27,087,826	\$ 31,737,798	\$ 30,403,570	\$ 32,062,570	1.0%
Total	\$ 69,085,244	\$ 80,756,488	\$ 80,205,172	\$ 82,637,145	2.3%
Authorized Positions	347.01	354.15	353.84	363.1	2.53%

A 9 FTEs

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

Budget Proposals

Proposed Program Changes	Positions	Treatment Plant Appropriations
---------------------------------	------------------	---------------------------------------

- | | | |
|--|------------|----------------|
| 1. Water Pollution Control Plant
Capital Improvement Program Staffing | 9.3 | 931,397 |
|--|------------|----------------|

This action adds 2.3 Senior Engineer, 2.3 Associate Engineer, 0.9 Senior Engineering Technician, 0.9 Associate Engineering Technician, 1.4 Sanitary Engineer, 0.6 Engineer II, 0.3 Analyst II, and 0.3 Staff Specialist; converts 0.4 Senior Engineer and 0.3 Supervising Environmental Services Specialist from temporary to permanent status; and eliminates 0.4 Senior Construction Inspector at the Water Pollution Control Plant (Plant) for various capital improvement projects. These positions are necessary to support the capital improvement projects that have resulted from the Plant Master Plan, which identified more than 100 major capital improvement projects to be implemented at the Plant over a 30-year planning period, in order to address aging infrastructure, future regulatory requirements, population growth and sea-level rise, and treatment process improvements. (Ongoing costs: \$1,021,444)

- | | | |
|--|--|----------------|
| 2. Water Pollution Control Plant Filter Maintenance | | 475,000 |
|--|--|----------------|

This action provides funding for the second year of a four-year effort to rehabilitate four tertiary filters used in the normal course of wastewater treatment and recycled water production. Filtration is provided by 16 dual media filters that remove suspended solids from the secondary process effluent. Rehabilitation is needed for four filters to ensure secondary effluent flows properly through the filter before it is disposed into the San Francisco Bay or reused through the recycled water system. (Ongoing costs: \$0)

- | | | |
|---|--|----------------|
| 3. Paint Shop Spray Booth System Replacement | | 450,000 |
|---|--|----------------|

This action provides funding to replace the existing Paint Shop Spray Booth System (PSBS) and associated equipment with a newer, larger, and more efficient system at the Plant. Replacement parts are no longer available in the market to make any repairs to the current system. Additionally, the current system uses a water-based scrubbing system, which is very inefficient and a technology that has become obsolete. Due to newer technology, the new PSBS will also be larger, allowing for greater painting/coating capacity of products such as valves, pumps, pipes, gearboxes, and motors, among other process equipment. (Ongoing costs: \$0)

- | | | |
|---|--|----------------|
| 4. Engine Generator Controls Replacement | | 400,000 |
|---|--|----------------|

This action provides funding to replace the electro-mechanical engine generator control systems for Engine Generator #2 and #3 at the Plant. The current control systems for these two generators are in constant need of repairs and are not reliable, resulting in frequent interruption of the cogeneration process, which causes additional purchased utility expenses every month. The controls technology is also obsolete and spare parts are no longer available. (Ongoing costs: \$0)

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
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5. Electrical Engineer Contractual Services		183,104
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This action provides funding of \$250,000 for consultant services for six months in the Energy and Automation Division at the Plant, offset by defunding a vacant Senior Engineer at the Plant for six months (\$66,896). The consultant would provide critical senior-level electrical engineering support to help address an extensive backlog of pending projects requiring this level of electrical expertise. The consultant would manage electrical cogeneration; instrumentation and controls; renewable and non-renewable fuel consumption related to state-mandated cap-and-trade requirements; and provide engineering review and coordination of air permit regulations. Past efforts at recruiting for the vacant Senior Engineer have been unsuccessful due to the highly technical nature of this position. An analysis is underway for potential adjustments to this classification to support recruitment efforts in the near future. Utilization of consultant services will be phased out once this position is filled. (Ongoing costs: \$0)

6. Water Conservation Staffing	(0.04)	(7,528)
---------------------------------------	---------------	----------------

This action shifts funding in 2015-2016 for a portion of a Supervising Environmental Services Specialist (0.04 FTE) in the Sustainability and Compliance Division to the General Fund to support city-wide water conservation efforts and planning efforts to recharge local aquifers with recycled water. This position had supported Plant staff with ensuring environmental and regulatory compliance. While this position will continue to support environmental and regulatory compliance efforts at the Plant, the General-Fund portion of the position will be dedicated to supporting city-wide water conservation activities. With this partial shift to the General Fund, the Supervising Environmental Services Specialist position will be able to advance city-wide efforts related to Indirect Potable Reuse (IPR) and water conservation programs; coordinate with all water retailers and water wholesalers serving San José; and lead inter-departmental coordination on monitoring and reducing City water use. (Ongoing costs: \$0)

2015-2016 Total Department Proposals	9.26	2,431,973
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San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: TREATMENT PLANT O&M
RESPONSIBLE MANAGER: JOANNA DE SA

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for the technologically advanced and cost-effective treatment of an average wastewater flow of over 100 millions of gallons per day. With a management focus on three primary aspects: compliance with the discharge permit, operations and maintenance, and equipment reliability, the Plant is able to produce an effluent that regularly meets or exceeds all permit conditions and represents the City's largest asset and critical public health service. The end results are a high quality effluent discharge to the Bay and user rates that reflect a commitment to cost-efficient operations.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Air Conditioning Mech	3.00	3.00	3.00	3.00
Analyst II C	1.00	1.00	1.00	1.00
Assist Hvy Dsi Eq Op Mech	3.00	1.00	1.00	1.00
Assoc Engineer	1.00	1.00	1.00	1.00
Assoc Engineering Tech	2.00	2.90	2.90	2.90
Deputy Dir U	1.00	1.00	1.00	1.00
Division Manager	3.00	3.00	3.00	3.00
Electrician	0.90			
Electrician Supervisor	1.00			
Engineerg Technician II	2.85	1.85	1.85	1.85
Geographic Systems Spec II	1.00	2.00	2.00	2.00
Groundsworker	0.95	0.95	0.95	0.95
Heavy Diesel Equip Op/Mec	13.00			
Heavy Diesel Equip Supvr	1.00			
Heavy Equip Oper	5.00	5.00	5.00	5.00
Industrial Electrician	6.30	7.20	7.20	7.20
Industrial Electrician Supervisor		1.00	1.00	1.00
Instrument Control Supvr	0.90	0.90	0.90	0.90
Instrument Control Technician	7.50	7.50	7.50	7.50
Maintenance Assistant	1.00	1.00	1.00	1.00
Maintenance Superintend	2.85	0.95	0.95	0.95
Maintenance Supervisor	1.00	1.00		
Maintenance Worker I	2.00	1.00	1.00	1.00
Network Engineer	1.00	1.00	1.00	1.00
Office Specialist II	2.00	2.00	2.00	2.00
Painter Supvr WPCP	1.00	1.00	1.00	1.00
Painter WPCP	6.00	6.00	6.00	6.00
Plant Ast Operations Manager I	4.00			
Plant Attendant	9.00			

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

PERSONNEL SUMMARY (continued)				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Plant Mechanic	17.75			
Plant Mechanical Supvr	5.00			
Plant Operator I	3.00			
Plant Operator II	15.00			
Plant Operator III	14.00			
Plant Shift Supervisor I	1.00			
Plant Shift Supervisor II	6.00			
PlantAst Operations Manager II	2.00			
Prin Office Specialist	1.00	1.00	1.00	1.00
Process & Systems Spec II	1.00	1.00	1.00	1.00
Secretary	1.00	1.00	1.00	1.00
Senior Industrial Electrician	0.90			
Senr Air Cond Mechanic	1.00	1.00	1.00	1.00
Senr Analyst	3.00	2.00	1.00	1.00
Senr Electrician	0.90			
Senr Engineer	2.00	2.00	2.00	2.00
Senr Engineering Tech	3.00	3.00	3.00	3.00
Senr Geographic Syst Spec	1.00	1.00	1.00	1.00
Senr Hvy Dsl Eq Oper Mech	3.00			
Senr Hvy Equipment Oper	2.00	2.00	2.00	2.00
Senior Industrial Electrician		1.80	1.80	1.80
Senr Instrument Control Tech	1.80	1.80	1.80	1.80
Senr Maintenance Worker	0.95	0.95	0.95	0.95
Senr Painter	1.00	1.00	1.00	1.00
Senr Plant Mechanic	8.00			
Senr Plant Operator I	2.00			
Senr Plant Operator II	11.00			
Senr Process & Syst Spec	2.00	2.00	2.00	2.00
Senr Warehouse Worker			0.88	0.88
Supervg Applicat Analyst	1.00	1.00	1.00	1.00
Supply Clerk	1.00	1.00	1.00	1.00
Warehouse Supervisor	0.88	0.88	0.88	0.88
Warehouse Worker I	1.76	1.76	0.88	0.88
Warehouse Worker II	1.76	1.76	1.76	1.76
Wastewater Attendant		18.00	18.00	18.00
Wastewater Maintenance Supt		1.90	1.90	1.90
Wastewater Mechanic I		6.85	4.85	4.85
Wastewater Mechanic II		23.90	25.90	25.90
Wastewater Mechanical Supvr I		1.00	1.00	1.00
Wastewater Mechanical Supvr II		5.00	6.00	6.00
Wastewater Operations Supt I		1.00	1.00	1.00
Wastewater Operations Supt II		6.00	6.00	6.00
Wastewater Operator I		4.00		
Wastewater Operator II		12.00	11.00	11.00
Wastewater Operator III		16.00	21.00	21.00
Wastewater Ops Foreperson I		13.00	11.00	11.00
Wastewater Ops Foreperson II		7.00	9.00	9.00
Wastewater Senior Mechanic I		1.00	1.00	1.00
Wastewater Senior Mechanic II		10.00	10.00	10.00
Total Full-Time Positions	200.95	207.85	206.85	206.85

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	12,710,523	16,184,282	16,341,576	16,303,099
Salaries-Reg-Part Time	358,706			
Salaries - Overtime	2,008,587	599,573	599,573	599,573
Other Personnel				
Benefits: Retirement Contrib	6,852,776	8,818,169	9,265,046	9,243,231
Other Fringe Benefits	2,279,932	2,945,277	2,804,493	2,797,890
Sub Total	\$ 24,210,524	\$ 28,547,301	\$ 29,010,689	\$ 28,943,793
Utilities: Gas	2,996,342	2,300,000	2,300,000	2,300,000
Utilities: Electricity	2,360,968	3,730,000	3,800,000	3,800,000
Supplies and Materials	5,366,018	3,945,327	3,795,327	4,270,327
Stores Fund - Stores				
Comm Expnse: Telephne-Telegrph	82,497	43,805	43,805	43,805
Comm Expnse: Postage	2,788	6,000	6,000	6,000
Print/Adv Outside Vendors	6,488	5,750	5,750	5,750
Duplicating-Stores Fund	0			
Utilities: Other	135,982	139,000	139,000	139,000
Chemicals	1,728,042	2,655,000	2,155,000	2,155,000
Rent: Equipment & Vehicles	343,354	337,424	337,424	337,424
Trans/Travel: In County	59	14,144	14,144	14,144
Trans/Travel: Out of County	5,539	28,395	28,395	28,395
Trans/Travel: Out of State	7,999	51,069	51,069	51,069
Training	133,402	112,382	137,382	137,382
Mileage Reimbursement	3,033	150	150	150
Vehicle Operating Costs	553,684	588,948	421,948	421,948
Dues & Subscriptions	1,114,047	1,013,300	1,124,973	1,124,973
Computer Data Processing	121,451	606,000	354,000	354,000
Prof & Consultant Svcs	8,203,578	8,381,397	8,564,886	8,814,886
Books				
Insurance	137,883	564,592	564,592	564,592
Taxes	28,683			
Judgement and Claims				
Capital Outlay				
Machnry/Equipmt: Machinery	241,405	1,300,000	750,000	1,600,000
Sub Total	\$ 23,573,239	\$ 25,822,683	\$ 24,593,845	\$ 26,168,845
Combined Totals	\$ 47,783,763	\$ 54,369,984	\$ 53,604,534	\$ 55,112,638

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

PROGRAM: WATERSHED PROTECTION
RESPONSIBLE MANAGER: NAPP FUKUDA

PROGRAM PURPOSE AND DESCRIPTION

Provides environmental enforcement and technical support functions to support Department programs, enforce Federal, State, and local regulations pertaining to industrial and commercial waste discharges to the sanitary system. The Source Control/Pretreatment Program provides engineering evaluation, permitting, inspection, and monitoring of industrial waste dischargers, maintains a source reduction program, and ensures that industrial discharges to the SJ/SC Water Pollution Control Plant are in compliance with all applicable industrial waste ordinances within San José and the tributary agencies. The Watershed Enforcement Program provides inspection and investigation of food service establishments to ensure proper management of fats, oils, and grease at the point of source to reduce discharges to the sanitary system. Lastly, the Laboratory Services Program provides analytical support to monitor wastewater treatment processes and NPDES compliance and support related special projects.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Analyst II C	0.75	0.75	0.75	0.75
Aquatic Toxicologist	1.00	1.00	1.00	1.00
Assoc Engineer	1.00	1.00	1.00	1.00
Biologist	1.00	1.00	1.00	1.00
Chemist	8.00	8.00	9.00	9.00
Deputy Dir U	0.75	0.75	0.75	0.75
Environment Insp, Assistant	3.60	3.00	4.00	4.00
Environment Inspector II	17.40	19.00	20.00	20.00
Environment Inspector, Sr	2.00	2.00	2.00	2.00
Environment Serv Prog Mgr	1.30	1.50	1.50	1.50
Environment Serv Spec	2.00	2.00	2.00	2.00
Environmental Laboratory Mgr	1.00	1.00	1.00	1.00
Environmental Laboratory Supvr	2.00	2.00	2.00	2.00
Laboratory Tech II	13.00	13.00	13.00	13.00
Microbiologist	2.00	2.00	1.00	1.00
Office Specialist II	2.28	2.28	2.28	2.28
Prin Office Specialist	0.85	0.85	0.85	0.85
Sanitary Engineer	3.00	3.00	3.00	3.00
Senr Office Specialist	1.52	1.52	1.52	1.52
Staff Specialist	0.76	0.76	0.76	0.76
Supervg Environ Serv Spec	1.00	1.00	1.00	1.00
Total Full-Time Positions	66.21	67.41	69.41	69.41

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	4,346,020	5,086,472	5,242,904	5,242,904
Salaries-Reg-Part Time	9,524			
Salaries - Overtime	21,253	27,733	27,733	27,733
Other Personnel	-			
Benefits: Retirement Contrib	2,253,925	2,851,772	2,951,290	2,951,290
Other Fringe Benefits	666,927	811,225	767,051	767,051
Sub Total	\$ 7,297,649	\$ 8,777,202	\$ 8,988,978	\$ 8,988,978
Supplies and Materials	485,056	544,198	544,198	544,198
Comm Expnse: Telephne-Telegrph	20,970	34,550	34,550	34,550
Comm Expnse: Postage	2,263	11,500	11,500	11,500
Print/Adv-Outside Vendors	4,976	31,490	31,490	31,490
Rent: Land & Buildings	1,633	1,250	1,250	1,250
Rent: Equipment & Vehicles	25,307	35,000	35,000	35,000
Trans/Travel: In County	2,311	12,575	12,575	12,575
Trans/Travel: Out of County	755	29,234	29,234	29,234
Trans/Travel: Out of State	3,516	33,200	33,200	33,200
Training	14,372	43,680	43,680	43,680
Mileage Reimbursement	1,446	5,200	5,200	5,200
Vehicle Operating Costs	37,813	25,052	25,052	25,052
Dues & Subscriptions	20,089	23,297	23,297	23,297
Computer Data Processing	20,690	66,250	66,250	66,250
Prof & Consultant Svcs	346,929	529,181	529,181	529,181
Machnry/Equimt: Machinery	11	150,000	150,000	150,000
Sub Total	\$ 988,137	\$ 1,575,657	\$ 1,575,657	\$ 1,575,657
Combined Totals	\$ 8,285,787	\$ 10,352,859	\$ 10,564,635	\$ 10,564,635

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: SOUTH BAY WATER RECYCLING
RESPONSIBLE MANAGER: JEFF PROVENZANO

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for coordinating the operations, maintenance and capital improvements of the water recycling system in the three cities it serves; providing customer support and Site Supervisor training; planning and implementing SBWR system improvements; facilitating compliance with local and State regulations; coordinating with regional agencies and implementing practices which result in increased water reuse and wastewater diversion.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Analyst II C	0.30	0.30	0.30	0.30
Assoc Construction Insp	0.70	0.70	0.70	0.70
Assoc Engineer	2.15	2.15	2.15	2.15
Assoc Engineering Tech	1.00	1.10	1.10	1.10
Cross Connection Spec	0.30	0.30	0.30	0.30
Deputy Dir			0.20	0.20
Division Manager	0.20	0.20	0.00	0.00
Electrician	0.15			
Engineer II	0.20	0.20	0.20	0.20
Engineerg Technician II	0.40	0.40	0.40	0.40
Environment Serv Prog Mgr	1.00	1.00	1.00	1.00
Environment Serv Spec	2.75	1.00	1.00	1.00
Groundswoker	0.05	0.05	0.05	0.05
Industrial Electrician	0.70	0.80	0.80	0.80
Instrument Control Supvr	0.10	0.10	0.10	0.10
Instrument Control Technician	0.50	0.50	0.50	0.50
Maintenance Superintend	0.25	0.15	0.15	0.15
Maintenance Supervisor	0.20	0.20	0.20	0.20
Plant Mechanic	0.25			
Prin Construction Inspect	0.30	0.30	0.30	0.30
Senior Industrial Electrician	0.10	0.20	0.20	0.20
Senr Construction Insp	0.30	0.30	0.30	0.30
Senr Electrician	0.10			
Senr Engineer	0.40	0.40	0.40	0.40
Senr Engineering Tech	1.00	1.00	1.00	1.00
Senr Instrument Control Tech	0.20	0.20	0.20	0.20
Senr Maintenance Worker	0.05	0.05	0.05	0.05
Senr Water Systems Tech	0.15	0.15	0.15	0.15
Supervg Environ Serv Spec	1.00	1.00	1.00	1.00
Wastewater Maintenance Supt		0.10	0.10	0.10
Wastewater Mechanic I		0.15	0.15	0.15
Wastewater Mechanic II		0.10	0.10	0.10
Water Meter Reader	0.15	0.15	0.15	0.15
Water Systems Technician	0.45	0.50	0.50	0.50
Total Full-Time Positions	15.40	13.75	13.75	13.75

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	879,485	1,155,881	1,182,893	1,182,893
Compensated Absence	5,170			
Salaries-Reg-Part Time	74,763			
Salaries - Overtime	21,849	12,217	12,217	12,217
Benefits: Retirement Contrib	494,146	738,481	764,747	764,747
Other Fringe Benefits	159,943	223,024	205,570	205,570
Sub Total	\$ 1,635,356	\$ 2,129,603	\$ 2,165,427	\$ 2,165,427
Utilities: Electricity	\$ 657,395	\$ 700,000	\$ 700,000	\$ 700,000
Supplies and Materials	117,132	80,575	80,575	80,575
Stores Fund - Stores				
Comm Expnse: Telephone-Telegrph	4,635	10,700	10,700	10,700
Comm Expnse: Postage	459	2,000	2,000	2,000
Print/Adv-Outside Vendors	896	11,720	11,720	11,720
Utilities: Other	5,580	500	500	500
Rent: Equipment & Vehicles	44	3,000	3,000	3,000
Trans/Travel: In County	280	3,500	3,500	3,500
Trans/Travel: Out of County	1,845	5,200	5,200	5,200
Trans/Travel: Out of State	684	7,000	7,000	7,000
Training	5,182	9,000	9,000	9,000
Mileage Reimbursement	4,178	2,400	2,400	2,400
Vehicle Operating Costs	15,952	38,000	27,000	27,000
Dues & Subscriptions	67,108	41,000	41,000	41,000
Computer Data Processing	5,339	16,200	16,200	16,200
Prof & Consultant Svcs	733,390	1,278,768	1,278,768	1,278,768
PW Capital Support Charge	2,165			
Capital Outlay				
Machnry/Equimt: Machinery	151,597			
Sub Total	\$ 1,773,861	\$ 2,209,563	\$ 2,198,563	\$ 2,198,563
Combined Totals	\$ 3,409,217	\$ 4,339,166	\$ 4,363,990	\$ 4,363,990

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: MGMT & ADMINISTRATIVE SERVICES
RESPONSIBLE MANAGER: LINDA CHARFAUROS

PROGRAM PURPOSE AND DESCRIPTION

Provides support services including: financial and accounting services, human resources, information technology services, contract administration, grant administration, capital improvements and operating budget management.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Account Clerk II	0.66	0.66	0.66	0.66
Accountant II	0.66	1.66	1.66	1.66
Accounting Tech	1.32	1.32	1.32	1.32
Administrative Assist C	0.66	0.66	0.66	0.66
Administrative Officer	0.66	0.66	0.66	0.66
Analyst II C	2.64	2.64	2.64	2.64
Assist DirU	0.66	0.66	0.66	0.66
Dir Environmental Serv U	0.66	0.66	0.66	0.66
Division Manger	0.83	0.83	0.83	0.83
Information Sys Analyst	1.24	1.28	1.25	1.25
Network Technician II	1.36	1.34	1.36	1.36
Office Specialist II	1.98	1.32	1.32	1.32
Prin Accountant	0.66	0.66	0.66	0.66
Prin Office Specialist	1.32	1.32	1.32	1.32
Program Manager I			0.66	0.66
Senr Account Clerk	2.64	2.64	2.64	2.64
Senr Accountant	2.64	2.64	2.64	2.64
Senr Analyst	1.98	1.98	2.64	2.64
Senior Process & Syst Specialist	0.68	0.67	0.68	0.68
Staff Specialist	0.66	0.66	0.66	0.66
Staff Technician	1.32	1.32	1.32	1.32
Supervg Applicat Analyst	0.66	0.52	0.65	0.65
Systems Apps Progrm II	1.37	1.40	1.25	1.25
Total Full-Time Positions	27.26	27.50	28.80	28.80

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2013-14	2014-15	2014-15
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	3,010,175	2,250,482	2,411,610	2,411,610
Salaries-Reg-Part Time	14,692			
Salaries - Overtime	37,175	12,143	12,143	12,143
Other Personnel	14,632			
Benefits: Retirement Contrib	1,183,409	1,470,859	1,621,192	1,621,192
Other Fringe Benefits	284,039	329,974	334,578	334,578
Sub Total	\$ 4,544,122	\$ 4,063,458	\$ 4,379,523	\$ 4,379,523
Supplies and Materials	64,307	33,780	34,490	34,490
Comm Expnse: Telephne-Telegrph	27,983	30,716	30,722	30,722
Comm Expnse: Postage	6,212	15,180	15,180	15,180
Print/Adv-Outside Vendors	460	4,463	4,471	4,471
Rent: Equipment & Vehicles	17,616	20,537	20,548	20,548
Trans/Travel: In County	483	1,320	1,228	1,228
Trans/Travel: Out of County	2,404	2,640	2,640	2,640
Trans/Travel: Out of State	7,466	1,980	1,980	1,980
Training	9,636	27,611	28,421	28,421
Mileage Reimbursement	766	1,757	1,763	1,763
Vehicle Operating Costs	4,970			
Dues & Subscriptions	1,476	8,089	8,091	8,091
Computer Data Processing	18,391	78,856	80,980	80,980
Prof & Consultant Svcs	9,867	90,238	90,238	90,238
Sub Total	\$ 172,038	\$ 317,167	\$ 320,752	\$ 320,752
Combined Totals	\$ 4,716,160	\$ 4,380,625	\$ 4,700,275	\$ 4,700,275

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM:

CIP-ENGINEERING SVCS

RESPONSIBLE MANAGER:

JULIA NGUYEN

PROGRAM PURPOSE AND DESCRIPTION

This program provides services for both capital project planning, design and construction of major projects as well as process engineering services within the Water Pollution Control Plant. With the adoption of the Plant Master Plan in 2013, which identified over \$2.1 billion in long-term capital projects over the next thirty years, the group's primary responsibility is to deliver the projects to address critical aging infrastructure, future regulatory requirements, and improved performance needs. Additional responsibilities include troubleshooting and improving the treatment process, primarily through research and development projects, to ensure efficient and cost effective operations of the Plant.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Analyst II C	1.00	1.00	1.00	1.30
Assoc Engineer	6.30	4.80	4.10	6.40
Assoc Engineering Tech	0.30	0.60	0.60	1.50
Deputy DirU	1.00	1.00	1.00	1.00
Division Manager	1.00	1.00	1.00	1.00
Engineer II			0.00	0.60
Office Specialist II	1.00	1.00	1.00	1.00
Principal Engineer	1.00	1.50	1.30	1.30
Sanitary Engineer	3.60	3.00	2.10	3.50
Senr Construction Insp	0.40	0.40	0.40	0.00
Senr Engineer	2.50	2.00	1.80	4.50
Senr Engineering Tech	0.40	0.30	0.30	1.20
Staff Specialist	1.00	1.00	1.00	1.30
Supervg Environ Serv Spe			0.00	0.30
Total Full-Time Positions	19.50	17.60	15.60	24.90

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	1,122,433	1,557,669	1,475,700	2,006,712
Compensated Absence	15,157			
Salaries-Reg-Part Time	(540)			
Salaries - Overtime	2,131			
Benefits: Retirement Contrib	557,047	740,649	646,570	879,230
Other Fringe Benefits	166,080	235,792	232,673	316,397
Sub Total	\$ 1,862,308	\$ 2,534,110	\$ 2,354,942	\$ 3,202,339
Supplies and Materials	18,534	29,881	29,881	53,881
Stores Fund - Stores				
Comm Expnse: Telephone	20,529	3,500	3,500	3,500
Comm Expnse: Postage	7	1,000	1,000	1,000
Print/Adv-Outside Vendors	4,398	12,000	5,000	5,000
Rent: Land & Buildings				
Rent: Equipment & Vehicles	10,812	29,000	29,000	29,000
Trans/Travel: In County	3,197	1,500	3,500	3,500
Trans/Travel: Out of County	4,073	3,000	5,000	5,000
Trans/Travel: Out of State	6,932	8,500	9,000	9,000
Training	6,188	17,750	12,750	36,750
Mileage Reimbursement	1,035	1,500	2,000	2,000
Vehicle Operating Costs		5,000	5,000	5,000
Dues & Subscriptions	2,719	5,000	5,000	5,000
Computer Data Processing	43,408	18,000	24,000	60,000
Prof & Consultant Svcs	15,212	850,000	850,000	850,000
PW CAP Support Charge	6,348			
Sub Total	\$ 143,391	\$ 985,631	\$ 984,631	\$ 1,068,631
Combined Totals	\$ 2,005,699	\$ 3,519,741	\$ 3,339,573	\$ 4,270,970

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: ENVIRONMENTAL COMPLIANCE /SAFETY
RESPONSIBLE MANAGER: RENE EYERLY

PROGRAM PURPOSE AND DESCRIPTION

Provides general regulatory compliance (NPDES, Title V, OSHA, etc.) and environmental health and safety support (EH&S) to the Plant and the rest of the department, as needed, through a variety of programs as required by local, State, and Federal regulations. The desired outcome is to protect environmental and public health, create a safe working environment for employees, and maintain compliance with all local, State, and Federal regulations pertaining to environmental compliance and occupational safety.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Assoc Engineer	0.30	0.30	0.30	0.30
Assoc Environ Serv Spec	0.96	1.00	1.00	1.00
Biologist	2.70	2.73	1.82	1.82
Environment Compl Officer	0.40	0.63	0.63	0.63
Environment Serv Prog Mgr	0.90	0.91	0.91	0.91
Environment Serv Spec	2.25	3.26	4.26	4.26
Senr Analyst	0.60	1.00		
Senr Engineer	1.00	1.00	1.00	1.00
Supervg Environ Serv Spec	0.90	0.91	0.91	0.91
Total Full-Time Positions	10.01	11.74	10.83	10.83

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	848,829	1,012,345	941,129	941,129
Salaries-Reg-Part Time	16,504			
Salaries - Overtime				
Benefits: Retirement Contrib	418,645	546,022	585,947	585,947
Other Fringe Benefits	131,423	176,386	161,264	161,264
Sub Total	\$ 1,415,401	\$ 1,734,753	\$ 1,688,340	\$ 1,688,340
Supplies and Materials	10,349	25,575	25,575	25,575
Stores Fund - Stores				
Comm Expnse: Telephone-Telegrph	5,318	231	231	231
Comm Expnse: Postage	953	268	268	268
Print/Adv-Outside Vendors	1,832	225	225	225
Duplicating-Stores Fund				
Rent: Land & Buildings		210	210	210
Rent: Equipment & Vehicles	305	65	65	65
Trans/Travel: In County	398	518	518	518
Trans/Travel: Out of County	3,017	1,765	1,765	1,765
Trans/Travel: Out of State	7	3,685	3,685	3,685
Training	3,571	4,664	4,664	4,664
Mileage Reimbursement	4,122	939	939	939
Vehicle Operating Costs	1,902			
Dues & Subscriptions	4,035	51,318	51,318	51,318
Computer Data Processing	15,038	1,638	1,638	1,638
Prof & Consultant Svcs	167,295	315,836	219,836	219,836
Taxes	1,510			
Sub Total	\$ 219,653	\$ 406,937	\$ 310,937	\$ 310,937
Combined Totals	\$ 1,635,054	\$ 2,141,690	\$ 1,999,277	\$ 1,999,277

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: OFFICE OF SUSTAINABILITY
RESPONSIBLE MANAGER: RENE EYERLY

PROGRAM PURPOSE AND DESCRIPTION

Provides support and technical expertise to the Water Pollution Control Plant to advance efforts related to renewable energy, zero waste, and wastewater reuse. In addition, staff focuses on supporting programs related to energy and water efficiency at the Plant, renewable energy technologies, and greenhouse gas emissions.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Environment Serv Prog Mgr		0.42	0.42	0.42
Environment Serv Spec	1.74	2.12	2.42	2.42
Environmntl Sustainability Mgr	0.37	0.42	0.42	0.42
Supervg Environ Serv Spec	2.24	1.69	1.69	1.65
Total Full-Time Positions	4.35	4.65	4.95	4.91

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	355,195	435,186	452,650	448,067
Salaries-Reg-Part Time	12,208			
Salaries - Overtime	7,476			
Benefits: Retirement Contrib	204,349	279,495	249,744	247,215
Other Fringe Benefits	35,706	51,483	41,102	40,686
Sub Total	\$ 614,933	\$ 766,164	\$ 743,496	\$ 735,968
Supplies and Materials	563	4,105	4,105	4,105
Stores Fund - Stores				
Comm Expnse: Telephone-Telegrph	369	323	323	323
Comm Expnse: Postage	300	350	350	350
Print/Adv-Outside Vendors	43	710	710	710
Duplicating-Stores Fund				
Trans/Travel: In County	198	672	672	672
Trans/Travel: Out of County	581	1,139	1,139	1,139
Trans/Travel: Out of State	16			
Training	785	4,145	4,145	4,145
Mileage Reimbursement	591	742	742	742
Vehicle Operating Costs		2,000	2,000	2,000
Dues & Subscriptions	4,918	12,600	12,600	12,600
Computer Data Processing	32	24,320	24,320	24,320
Prof & Consultant Svcs	67,164	72,320	72,320	72,320
Sub Total	\$ 75,561	\$ 123,426	\$ 123,426	\$ 123,426
Combined Totals	\$ 690,494	\$ 889,590	\$ 866,922	\$ 859,394

San José/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM:

COMMUNICATIONS

RESPONSIBLE MANAGER:

JENNIE LOFT

PROGRAM PURPOSE AND DESCRIPTION

This program manages the media relations and public outreach needs for the San Jose/Santa Clara Water Pollution Control Plant, the wastewater pre-treatment, pollution prevention, and recycled water programs. This includes responding to media inquiries and seeking media coverage; developing and maintaining best management practice materials including information to regulated businesses; publicizing and conducting community events to collect pharmaceuticals, mercury thermometers, and fats/oils/grease; supporting outreach efforts and providing information to recycled water customers.

PERSONNEL SUMMARY				
Full Time Positions	2013-14	2014-15	2015-16	2015-16
	Adopted	Adopted	Base	Proposed
Analyst II C	0.37	0.35	0.35	0.35
Marketing/Public Outreach Mgr	0.37	0.35		
Marketing/Public Outreach Rep I				
Marketing/Public Outreach Rep II	1.85	2.25		
Program Manager II	0.37	0.35		
Public Information Rep II			1.90	1.90
Public Information Mgr			0.35	0.35
Senior Public Information Rep			0.70	0.70
Staff Specialist	0.37	0.35	0.35	0.35
Total Full-Time Positions	3.33	3.65	3.65	3.65

DETAILED PROGRAM BUDGET				
Detail/Category	2013-14	2014-15	2015-16	2015-16
	Actual	Adopted	Base	Proposed
Salaries-Reg-Full Time	261,830	294,833	286,746	286,746
Salaries-Reg-Part Time	5,247			
Salaries - Overtime	1,546			
Benefits: Retirement Contrib	111,195	132,932	143,123	143,123
Other Fringe Benefits	37,306	38,334	40,338	40,338
Sub Total	\$ 417,124	\$ 466,099	\$ 470,207	\$ 470,207
Supplies and Materials	6,973	24,579	24,967	24,967
Comm Expnse: Telephone-Telegraph	670	229	229	229
Comm Expnse: Postage	435	14,000	14,000	14,000
Print/Adv-Outside Vendors	1,121	130,200	129,700	129,700
Rent: Land & Buildings	2,177			
Trans/Travel: In County	135	477	477	477
Trans/Travel: Out of County	448	108	108	108
Trans/Travel: Out of State	68			
Training	359	2,531	2,418	2,418
Mileage Reimbursement	195			
Dues & Subscriptions	1,473	425	425	425
Computer Data Processing	18	2,185	1,435	1,435
Prof & Consultant Svcs	127,873	122,000	122,000	122,000
Sub Total	\$ 141,946	\$ 296,734	\$ 295,759	\$ 295,759
Combined Totals	\$ 559,071	\$ 762,833	\$ 765,966	\$ 765,966

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

Performance Measures-Treatment Plant

Performance Measures

	2013-2014 Actual	2014-2015 Target	2014-2015 Estimated	2015-2016 Target
 Millions of gallons per day discharged to the Bay during average dry weather season State order: 120 mgd or less*	82 mgd	<120 mgd	82 mgd	<120 mgd
 % of time pollutant discharge requirements are met or surpassed	100%	100%	100%	100%
 # of requirement violations				
-Pollutant discharge	0	0	0	0
-Air emissions	0	0	0	0
 % of significant industrial facilities in consistent compliance with federal pretreatment requirements	93%	90%	93%	90%
 Cost per million gallons treated	\$1,323	\$1,300	\$1,331	\$1,371

Changes to Performance Measures from 2014-2015 Adopted Budget: No

* Average dry weather season is defined as the lowest three-month continuous average between May and October, which during the fiscal year reporting period is July-September.

Activity and Workload Highlights

	2013-2014 Actual	2014-2015 Forecast	2014-2015 Estimated	2015-2016 Forecast
Average millions of gallons per day treated	103	107	101.4	102.3
Total population in service area*	1,419,404	1,405,300	1,423,736	1,444,238

Changes to Activity & Workload Highlights from 2014-2015 Adopted Budget: No

* The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four sanitation districts including: San José, Santa Clara, Milpitas, Cupertino Sanitation District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated).

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

Performance Measures-Recycled Water

Performance Measures

	2013-2014 Actual	2014-2015 Target	2014-2015 Estimated	2015-2016 Target
 Millions of gallons of recycled water delivered annually	5,106	5,000	5,000	5,000
 % of time recycled water quality standards are met or surpassed	100%	100%	100%	100%
 % of wastewater influent recycled for beneficial purposes during the dry weather period*	18%	15%	15%	15%
 Cost per million gallons of recycled water delivered	\$1,180	\$1,830	\$1,300	\$1,768
 % of recycled water customers rating service as good or excellent based on reliability, water quality, and responsiveness**	85%	85%	N/A**	85%

Changes to Performance Measures from 2014-2015 Adopted Budget: No

* Dry weather period is defined as the lowest continuous three-month average rainfall between May and October, which during the fiscal year reporting period is July-September.

** No survey was conducted in 2014-2015. Data for this measure was collected from a new biannual survey last conducted in early 2014, and those results are reflected in the 2013-2014 Actual column.

Activity and Workload Highlights

	2013-2014 Actual	2014-2015 Forecast	2014-2015 Estimated	2015-2016 Forecast
Total number of South Bay Water Recycling customers	759	775	785	800

Changes to Activity & Workload Highlights from 2014-2015 Adopted Budget: No

San José/Santa Clara Water Pollution Control Plant
Environmental Services Department

Performance Measures- Conservation

Performance Measures

	2013-2014	2014-2015	2014-2015	2015-2016
	Actual	Target	Estimated	Target
 (Energy) % of energy used at the Water Pollution Control Plant that is renewable*	38%	40%	39%*	39%

Changes to Performance Measures from 2014-2015 Adopted Budget: No

* The 2014-2015 Estimated and 2015-2016 Target are based on improved data interpretation and a more accurate calculation approach for deriving percent of renewable energy used at the Water Pollution Control Plant.

Activity and Workload Highlights

	2013-2014	2014-2015	2014-2015	2015-2016
	Actual	Forecast	Estimated	Forecast
City-Wide Renewable Energy Generation	24%	N/A	24%	24%

Changes to Activity & Workload Highlights from 2014-2015 Adopted Budget: Yes¹

* PG&E data that is used to calculate energy usage will not be available until mid-2015. As such, this data is not incorporated into the 2014-2015 estimate.

¹Changes to Activity and Workload Highlights from 2014-2015 Adopted Budget:

- + Renewable Energy Generation is a new Activity Highlight for the 2015-2016 Proposed Budget. This activity measures the progress the City is making in achieving 100% electrical power sourced from clean, renewable resources. This activity is also reported in the City's Annual Green Vision Report.

