



Memorandum

TO: TREATMENT PLANT ADVISORY COMMITTEE **FROM: Kerrie Romanow**

SUBJECT: FIVE-YEAR 2014-2018 PROPOSED CAPITAL IMPROVEMENT PROGRAM **DATE: May 9, 2013**

Approved

Date

This memorandum serves to transmit the San Jose / Santa Clara Water Pollution Control Plant Proposed Five-Year 2014 – 2018 Capital Improvement Program. The anticipated five-year capital improvement program and agency contributions were discussed with staff representatives from the tributary agencies on February 11 and March 18. The Proposed Five-Year Capital Improvement Program is provided for the Treatment Plant Advisory Committee's review and for a recommendation to the San Jose City Council for approval.

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


for **KERRIE ROMANOW**
Acting Director, Environmental Services

PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

Five-Year 2014-2018 Capital Improvement Program

Submitted by

Kerrie Romanow, Director

Environmental Services Department

City of San Jose

TO: Treatment Plant Advisory Committee

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Pat Kolstad
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Boardmember, Cupertino Sanitary District
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Councilmember, City of San Jose
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2013-2014 CAPITAL BUDGET

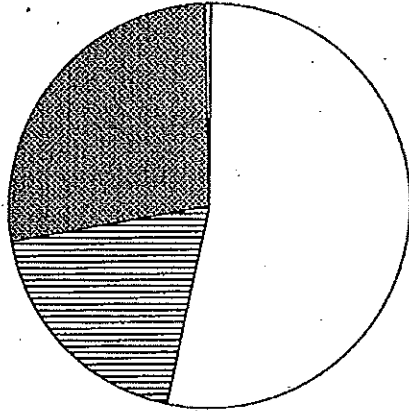
**2014-2018 CAPITAL
IMPROVEMENT PROGRAM**

**WATER POLLUTION
CONTROL**

**WATER POLLUTION
CONTROL**

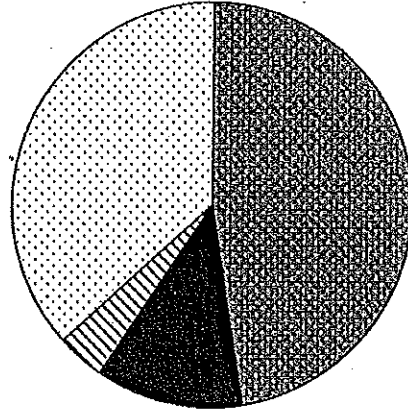
WATER POLLUTION CONTROL 2014-2018 Capital Improvement Program

2013-2014 Proposed
Source of Funds



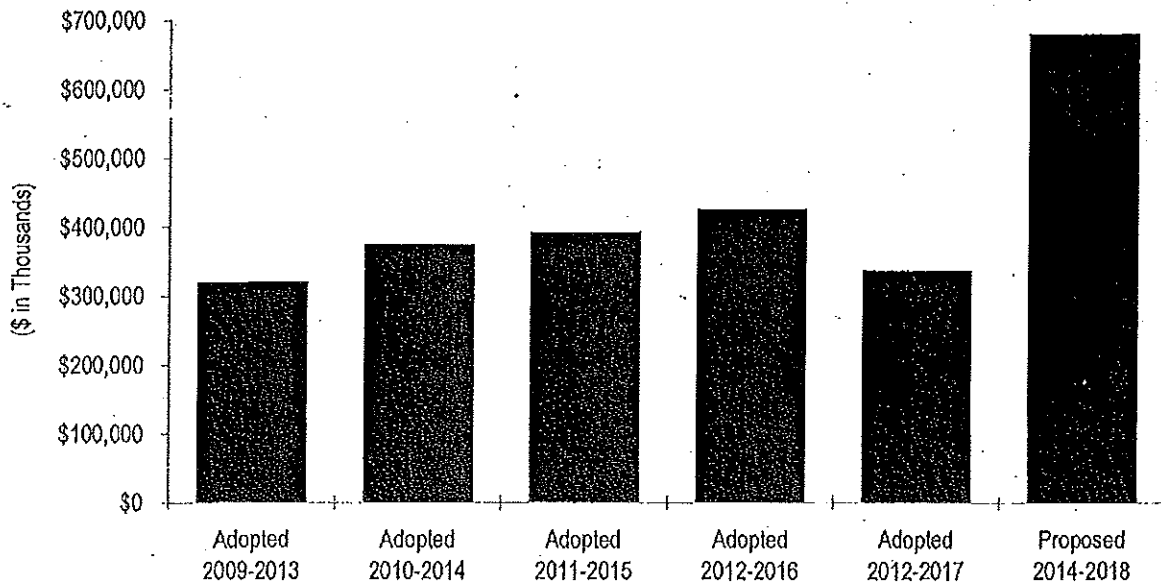
- Beginning Fund Balance
- ▨ Other Government Agencies
- ▩ Transfers
- ▧ Interest and Miscellaneous

2013-2014 Proposed
Use of Funds



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

CIP History



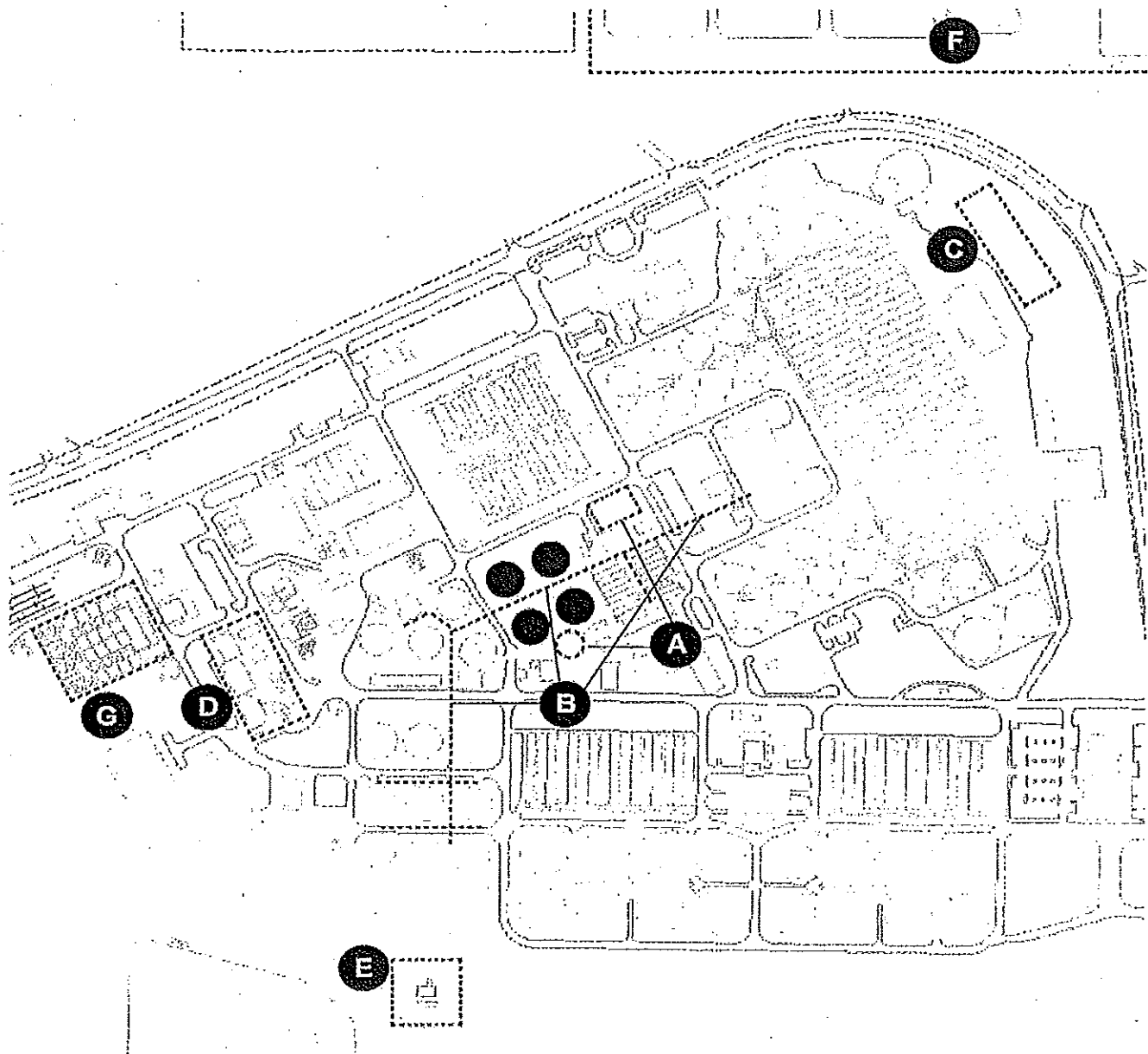
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Water Pollution Control

2014-2018 Proposed Capital Improvement Program*

- A) Combined Heat & Power Equipment Repair & Rehabilitation
- B) Digester and Gas Line Rehabilitation
- C) Energy Generation Improvements

- D) Headworks No. 2 Enhancement
- E) Iron Salt Feed Station
- F) New Biosolids Facility
- G) New Filter Complex



* Includes only a selection of the most significant Plant projects. Please see the Source & Use for a full project listing.

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Water Pollution Control Capital Program
2014-2018 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 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). 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)	111
TONS OF SLUDGE PRODUCED EACH SEASON	50,000
AVERAGE MEGAWATTS PRODUCED	8.35

The 2014-2018 Proposed Capital Improvement Program (CIP) provides funding of \$680.9 million, of which \$139.2 million is allocated in 2013-2014. 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* and *Healthy Streams, Rivers, Marsh, and Bay*.

PROGRAM PRIORITIES AND OBJECTIVES

The 2014-2018 Proposed CIP is consistent with the goals and policies outlined in the City of San José Envision 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

2014-2018 Proposed Capital Improvement Program

Overview

PROGRAM PRIORITIES AND OBJECTIVES

The development of this Proposed CIP is guided by the Draft 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. This work is currently underway and certification of the Environmental Impact Review Report is expected to be completed by summer 2013. This Proposed CIP is also based on direction received from TPAC and the City Council to prioritize pursuing alternative delivery methods for the biosolids and energy generation projects due to the critical nature of the Plant's energy systems.



Water Pollution Control Plant

The Draft PMP envisions approximately \$2 billion of investments over the next 30 years to rebuild and modernize the Plant. The Draft PMP recommends more than 100 capital improvement projects with the most critical rehabilitation work to take place over the next ten years. In February 2012, the City Council approved a "packaged" delivery approach for organizing and implementing these projects. Package 1 includes critical rehabilitation projects covering the various treatment process areas estimated to cost an average of \$40 million/year over the next ten years. For the next five years, San Jose's portion of the funding is already programmed into the 2014-2018 sewer rate models with no rate increase for 2013-2014 and moderate rate increases in the following years. Package 2 includes new technology projects that replace existing treatment process technologies with brand new technologies and facilities (rather than rehabilitating existing facilities); the cost is estimated between \$400 to \$500 million over the next five to seven years. The implementation of all Package 2 projects is contingent upon the issuance of long-term debt to ease the rate impacts on users and spread the costs over the life of the infrastructure. To the extent possible, existing funds will be used to fund early work on Package 2 projects. A top priority for the program with this Proposed CIP is to secure alternative financing for projects beginning in 2014-2015. The impact to rates is currently unknown, but will be evaluated as part of the financing strategy.

SOURCES OF FUNDING

Revenues for the Five-Year CIP are derived from several sources: transfers from the City of San José Sewer Service and Use Charge 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 proceeds from a planned bond issuance.

Water Pollution Control Capital Program

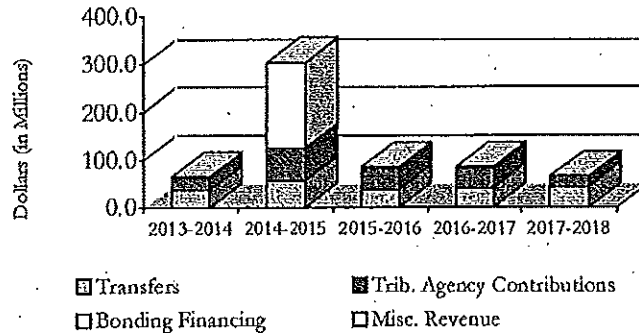
2014-2018 Proposed Capital Improvement Program

Overview

SOURCES OF FUNDING

The Sewer Service and Use Charge 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 \$202.8 million, which reflect a \$68.5 million (33.8%) increase compared to the 2013-2017 Adopted CIP due to the incorporation of Package 2 projects, as described under Program Priorities and Objectives.

Summary of Revenues



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 \$203.6 million, which represents a \$130.1 million (63.9%) increase compared to the 2013-2017 Adopted CIP.

Approximately 57% of the Proposed CIP relies on the issuance of long-term debt for funding primarily the implementation of Package 2 projects -- Energy Generation Improvements and New Biosolids Facility.

To accommodate these costs in future years, a single bond issuance amounting to \$177.3 million has been programmed in 2014-2015. Proceeds from the bonds would fund approximately \$152 million of project costs, in addition to a debt service reserve and bond issuance costs. Debt service on the bonds is estimated to be approximately \$6 million annually rising to approximately \$10.3 million in 2018-2019 to reflect the amortization of the principal loan amount. The Proposed CIP assumes that no rate increase will be needed for the Sewer Service and Use Charge Fund for 2013-2014; however, this will be reassessed in future years based on the levels of debt service needed to accomplish the full 30-year PMP. Based on the priorities set for Package 2, the estimated size of the issuance and the related debt service are scheduled to cover project costs programmed in the 2014-2018 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.

Currently staff has only just begun the work needed to scope the PMP projects fully and sequence them into an overall plan. To develop a more detailed financial plan, an overall project plan, precise

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

SOURCES OF FUNDING

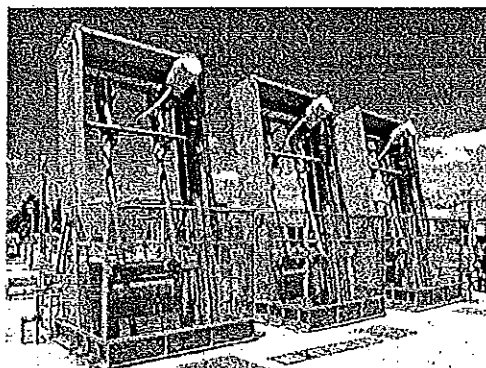
costs, and cash flows will need to be developed. Staff anticipates that in late 2013, project planning will be much further along, which will facilitate the development of a more refined financial plan.

PROGRAM HIGHLIGHTS

The wastewater that enters the Plant is treated using various physical and biological processes before being discharged into the 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.

Wastewater Preliminary 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 making enhancements to the headworks facility to improve its operational reliability and to develop a long-term build-out strategy for the ultimate headworks facility.



Headworks Bar Screens

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
Headworks No. 1 Repair & Rehabilitation	Rehabilitate existing bar screens, various process piping, and discharge valves; replace grit classifiers and repair concrete. Project will keep facility operating until enhancement work is completed on Headworks No. 2 (HW2).	\$1.2 million	2 nd Quarter 2015
Headworks No. 2 Enhancement	Modify raw sewage distribution structure, construct new 96-inch diameter connection pipeline, and re-route recycle flows and other process waters from Headworks No. 1 (HW1) to other structures.	\$4.7 million	2 nd Quarter 2016
Headworks No. 2 Expansion	Conduct study to evaluate whether to expand HW2 and decommission HW1 or fully refurbish HW1 in lieu of HW2 expansion.	\$0.5 million	2 nd Quarter 2013

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Wastewater Primary Treatment (Cont'd)

Several other improvements related to the Preliminary Treatment section of the Plant are recommended by the PMP but are not included in this CIP because the recommended implementation timeline falls outside the five-to-ten year window of this CIP, and/or additional project scoping or analysis is needed.

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 to allow heavy solids to settle out while allowing oil, grease, and lighter solids to float to the surface.

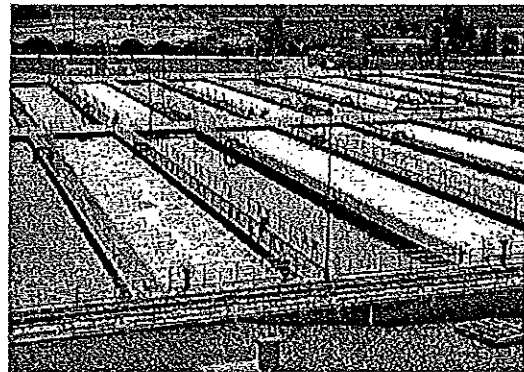
Mechanical skimmers remove grease and floatable materials from the water surface and settled solids (i.e., sludge) are collected at the bottom of the tanks while the remaining liquid waste stream is moved onto the next process for further treatment. Rehabilitation of the primary tanks will be conducted in several 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	2014-2018 CIP Cost	Estimated Completion
East Primary Tank Rehabilitation, Seismic Retrofit, and Odor Control	Seismic retrofit primary tanks for odor control covers, coat concrete, and convert clarifier mechanisms to stainless steel.	\$7.0 million	2 nd Quarter 2021

Future projects outside the CIP timeframe include tunnel rehabilitation, construction of a new equalization basin, and demolition of the West Primaries. Projects and funding to address these recommendations will be advanced with future CIP budget cycles.

Wastewater Secondary 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



Secondary Aeration Tanks

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Wastewater Secondary Treatment (Cont'd)

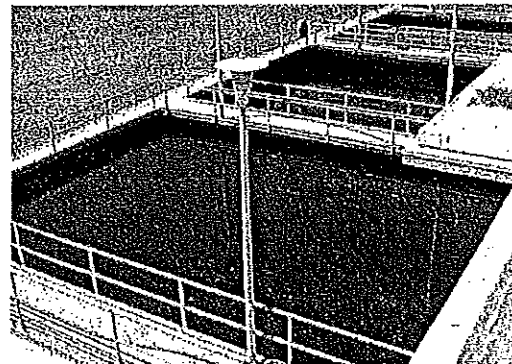
excess waste. The secondary treatment process removes contaminants as required by the Plant's NPDES discharge permit. Rehabilitation of the secondary and nitrification clarifiers will be conducted in phases over a 30-year period and involves performance modifications, along with mechanical, structural, and electrical rehabilitation. Funding included with this CIP focuses on modifications to one pilot clarifier followed by performance monitoring before proceeding with rehabilitation of the remaining 25 secondary clarifiers and 15 nitrification clarifiers.

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
Secondary and Nitrification Clarifier Rehabilitation	Rehabilitate structural, mechanical, and electrical elements of existing secondary and nitrification clarifiers.	\$5.4 million	2 nd Quarter 2024

Wastewater Tertiary 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 reuse 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 making interim repairs to the existing filters to keep the facility operational through transition to a new filter complex, and evaluating and pilot-testing new filter technologies. Other work includes the decommissioning of the old chlorine and sulfur dioxide disinfection facilities.



Existing Filter Complex

Biosolids

The Plant currently produces biosolids material through a combination of anaerobic digestion, lagoon storage, and air drying. The final product is disposed of and used as alternative daily cover (ADC) at the Newby Island landfill. Due to the projected closure of the Newby Island landfill in 2025, potential changes to biosolids regulations, and odor impacts to the surrounding community, the Plant will be transitioning to new biosolids management operations by 2018. The new biosolids operation will consist of mechanical dewatering, heat drying and greenhouse, side stream treatment,

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Biosolids (Cont'd)

and odor control components. In addition, phased rehabilitation of the digesters, sludge thickening, and gas handling facilities will be conducted over a ten-year period. Funding included with this CIP focuses on the first phase of the digester rehabilitation; and accelerated implementation of the New Biosolids Facility project.

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
New Biosolids Facility	Study and characterize lagoon material, assess disposal options, and dispose of the biosolids. Construct new biosolids processing complex, transitioning from open air biosolids drying to mechanical sludge dewatering and drying.	\$325 million	2nd Quarter 2018
Digester Rehabilitation	Rehabilitate 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.	\$58.5 million	2nd Quarter 2021

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. While the past CIP's focused on modifications to the electrical distribution system, this CIP focuses on replacing aging energy generation equipment. 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 forecast levels. Funding included with this CIP focuses on installation and/or replacement of a new digester gas compressor facility and gas holder, new gas turbines (or other advanced internal combustion engines), and backup diesel generators.

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
Combined Heat and Power Equipment Repair and Rehabilitation	Replace or rehabilitate cooling towers, chillers, gas compressors, gas holding tanks, and other support systems.	\$8.2 million	2nd Quarter 2015
Energy Generation Improvements	Replace existing engine-generators with new gas turbines or internal combustion engines.	\$100 million	2nd Quarter 2015
Plant Electrical Reliability	Replace switchgears, modify distribution buses and cabling, and provide backup systems in the Plant's electrical systems.	\$2.3 million	2nd Quarter 2014

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

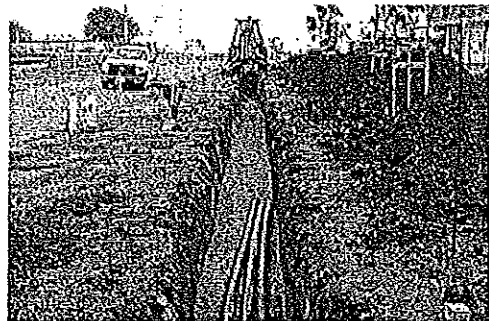
Advanced Process Control Systems

The Plant is a highly complex, automated facility monitored and controlled by a complex 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 utilizing 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 program, and upgrades to the DCS system.

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
Advanced Process Control and Automation	Install various meters and monitoring equipment; develop an automation master plan.	\$1.5 million	2 nd Quarter 2014
Plant-wide Flowmeter Replacement Program	Replace flowmeters throughout the Plant.	\$6.3 million	2 nd Quarter 2016
Treatment Plant Distributed Control System	Upgrade and convert system hardware and software components.	\$2.0 million	2 nd Quarter 2017

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. The 2014-2018 Proposed CIP includes \$24.8 million for various site improvement projects such as building improvements, warehouse facility additions, construction of a new administration building and roads, storm drainage improvements, equipment replacement, handrail replacements, telecommunication systems upgrades, and a new potable water pipeline to increase water service reliability for Plant operations.



Fire Main Replacement - Phase 2

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

Site Facility Improvements (Cont'd)

Project Name	Description	2014-2018 CIP Cost	Estimated Completion
Equipment Replacement	Equipment to be replaced or rehabilitated includes air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments, and other equipment as required.	\$8.3 million	Ongoing
Plant Infrastructure Improvements	Replacement and rehabilitation work includes roof and handrail replacement, tunnel and concrete repairs, yard piping improvements, telecommunication systems upgrade, and Plant support systems/building improvements.	\$5.0 million	Ongoing
Treatment Plant Street Rehabilitation	Rehabilitation of the Plant's street network, parking lots, and other hardscaped areas.	\$2.5 million	Ongoing
Urgent and Unscheduled Treatment Plant Rehabilitation	Timely response to unanticipated maintenance and repair needs at the Plant.	\$7.5 million	Ongoing

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. Current SBWR projects underway include the SBWR Reservoir Facility, which is constructing an Advance Water Purification Center as a joint project with the Santa Clara Valley Water District (SCVWD). The Advance Water Purification Center will provide for additional filtration and treatment of the recycled water. This project is expected to be completed in early 2013, marking a significant milestone in the evolution of SBWR. In addition, a strategic planning effort with the SCVWD is underway to develop a Master Plan to address future expansion, operation, and maintenance of the system.

The SBWR Master Planning process is expected to be completed by September 2014. The process will develop recommendations and options for SBWR's mandates, mission, service level, cost effectiveness, and funding through engagement of key stakeholders from the Plant Tributary Agencies and the SCVWD. The Master Plan will include an assessment of the ability of existing infrastructure to meet current and future recycled water demands and identify future capital

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

PROGRAM HIGHLIGHTS

South Bay Water Recycling Program (Cont'd)

improvements to enhance system reliability and water quality. In August 2011, the U.S. Bureau of Reclamation awarded the City approximately \$1.2 million to conduct a feasibility study for improvements and expansions to the SBWR system, which will fund about half of this Master Planning effort.

This Proposed Five-Year CIP includes \$4.5 million for SBWR System Reliability and Infrastructure Replacement Project, with \$1.5 million budgeted for 2013-2014.

Project Name	Description	2014-2018 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.	\$4.5 million	2 nd Quarter 2016

Reserves

As in prior years, the 2014-2018 Proposed CIP includes a \$5.0 million reserve for equipment replacement. This reserve level was established in accordance with the SWRCB 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 Tributary Agencies.

Water Pollution Control Capital Program
2014-2018 Proposed Capital Improvement Program
Overview

MAJOR CHANGES FROM THE 2013-2017 ADOPTED CIP

Major changes from the 2013-2017 Adopted CIP include:

Process Area	Project Name	Funding Change
Preliminary Treatment	Headworks No. 1 Repair & Rehabilitation	- \$4.2 million
Preliminary Treatment	Headworks No. 2 Enhancement	+ \$4.5 million
Primary Treatment	East Primary Rehabilitation, Seismic Retrofit, and Odor Control	- \$27.6 million
Secondary Treatment	BNR 1 & BNR 2 Connection	- \$13.6 million
Secondary Treatment	Fine Bubble Membrane Diffuser Conversion	- \$6.4 million
Secondary Treatment	Secondary and Nitrification Clarifier Rehabilitation	- \$9.4 million
Biosolids	New Biosolids Facility	+ \$285.0 million
Biosolids	Digester Rehabilitation	+ \$57.3 million
Electrical Systems & Power Generation	Combined Heat & Power Equipment R&R	+ \$8.2 million
Advanced Process Control & Automation	Energy Generation Improvements	+ \$100.0 million
Advanced Process Control & Automation	Plant-wide Flowmeter Replacement Program	New
Non-Construction	Program Management	+ \$4.2 million

The most significant increases to the program reflect the incorporation of the Package 2 projects, namely the New Biosolids Facility project and the Energy Generation Improvements project. The decreases reflect a reprioritization and deferment of several projects under the Primary and Secondary Treatment process areas.

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 gas turbines (or other advanced internal combustion engines) and will start operation in 2015-2016. The impact to the operating budget will be dependent on the technology chosen, the operating approach, and the start-up schedule. Preliminary engineering will be completed this fiscal year and operating impacts will be incorporated in the next CIP.

Water Pollution Control Capital Program

2014-2018 Proposed Capital Improvement Program
Overview

OPERATING BUDGET IMPACT

In 2018-2019, the new Biosolids process is expected to be implemented and is projected to have a significant impact on the operating budget due to new dewatering and drying technologies, which are energy intensive. The selected project delivery model for the Biosolids project (design-build, design-build-operate, or other) will also impact future operating costs.

While there are increased operating costs associated with the above two projects, it is anticipated that some savings will be realized from operational efficiencies and lower maintenance costs.



2013-2014 CAPITAL BUDGET

2014-2018 CAPITAL IMPROVEMENT PROGRAM



WATER POLLUTION CONTROL

SOURCE OF FUNDS

USE OF FUNDS

SOURCE AND USE OF FUNDS STATEMENTS

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. The Source and Use of Funds Statements display major categories of capital revenues and expenditures for each year over the five-year period.

Water Pollution Control

2014-2018 Proposed Capital Improvement Program Source of Funds (Combined)

SOURCE OF FUNDS	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>San José-Sante Clara Treatment Plant Capital Fund (512)</u>							
Beginning Fund Balance	114,314,043	74,141,157	51,245,157	139,503,157	79,008,157	26,834,157	74,141,157 *
Sale of Bonds			177,340,000				177,340,000
Revenue from Other Agencies:							
<u>Federal Government</u>							
- Recovery Act - Federal Revenue	89,000						
- SBWR Master Plan Grant	446,000	754,000					754,000
- U.S. Bureau of Reclamation Grant	3,345,000	250,000	250,000	250,000	250,000	250,000	1,250,000
<u>Water Pollution Control Plant User Agencies</u>							
- 2005 Bond Debt Repayment	1,222,000	1,223,000	1,216,000	1,221,000	1,070,000	165,000	4,895,000
- Equipment Replacement			581,000	581,000	581,000	581,000	2,324,000
- State Revolving Fund Loan Repayment	1,374,000	1,374,000	1,374,000	1,374,000	1,374,000	1,374,000	6,870,000
- WPCP Projects	6,625,000	23,001,000	65,393,000	42,272,000	39,624,000	19,205,000	189,495,000
<u>Santa Clara Valley Water District</u>							
- SBWR Strategic Plan Contribution	1,200,000						
- SCVWD - Advanced Water Treatment Contribution:	1,000,000						
Contributions, Loans and Transfers from: <u>Special Funds</u>							
- Transfer for 2014 Debt Service from the Sewer Service and Use Charge Fund (541)			6,000,000	6,000,000	6,000,000	6,000,000	24,000,000
- Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	3,090,000	3,090,000	3,090,000	3,090,000	15,450,000
- Transfer from the Sewer Service and Use Charge Fund (541)	23,312,000	34,576,000	48,199,000	29,085,000	32,331,000	34,587,000	178,778,000

Water Pollution Control

2014-2018 Proposed Capital Improvement Program
Source of Funds (Combined)

SOURCE OF FUNDS (CONT'D.)	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>San José-Santa Clara Treatment Plant Capital Fund (512)</u>							
Interest Income	327,000	450,000	985,000	928,000	727,000	563,000	3,653,000
Miscellaneous Revenue							
- Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
Reserve for Encumbrances	14,058,114						
Total San José-Santa Clara Treatment Plant Capital Fund	<u>170,791,157</u>	<u>139,248,157</u>	<u>356,062,157</u>	<u>224,693,157</u>	<u>164,444,157</u>	<u>93,038,157</u>	<u>680,895,157 *</u>
TOTAL SOURCE OF FUNDS	<u>170,791,157</u>	<u>139,248,157</u>	<u>356,062,157</u>	<u>224,693,157</u>	<u>164,444,157</u>	<u>93,038,157</u>	<u>680,895,157 *</u>

* The 2014-2015 through 2017-2018 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control

2014-2018 Proposed Capital Improvement Program

Use of Funds (Combined)

<u>USE OF FUNDS</u>	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>Construction Projects</u>							
Public Art							
Public Art	614,000	14,000	30,000	3,000			47,000
Total Public Art	614,000	14,000	30,000	3,000			47,000
<u>Preliminary Wastewater Treatment</u>							
Headworks No. 2 Expansion	500,000						
1. Headworks No. 1 Repair and Rehabilitation	600,000	1,000,000	200,000				1,200,000
2. Headworks No. 2 Enhancement	6,811,000	1,400,000	3,000,000	300,000			4,700,000
Total Preliminary Wastewater Treatment	7,911,000	2,400,000	3,200,000	300,000			5,900,000
<u>Primary Wastewater Treatment</u>							
East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,715,000				2,000,000	5,000,000	7,000,000
Iron Silt Feed Station	1,918,000						
Total Primary Wastewater Treatment	3,633,000				2,000,000	5,000,000	7,000,000
<u>Secondary Wastewater Treatment</u>							
Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection	876,000						
Fine Bubble Membrane Diffuser Conversion	1,000,000						
Secondary and Nitrification Clarifier Rehabilitation	3,170,000				1,400,000	4,000,000	5,400,000
Total Secondary Wastewater Treatment	5,046,000				1,400,000	4,000,000	5,400,000

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Use of Funds (Combined)

	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
USE OF FUNDS (CONTD.)							
<u>Construction Projects</u>							
Tertiary Wastewater Treatment							
Alternative Disinfection	1,000,000						
Filter Improvements	822,000						
New Filter Complex	1,000,000						
Total Tertiary Wastewater Treatment	2,822,000						
Biosolids							
Dissolved Air Flotation Rehabilitation and Odor Control	1,000,000						
Inactive Lagoons Bio-Solids Removal	624,000						
3. Digester Rehabilitation	12,843,000		47,000,000	700,000	9,750,000	1,000,000	58,450,000
4. New Biosolids Facility	1,000,000	3,000,000	70,000,000	115,000,000	97,000,000	40,000,000	325,000,000
Total Biosolids	15,467,000	3,000,000	117,000,000	115,700,000	106,750,000	41,000,000	383,450,000
Electrical Systems and Power Generation							
Fuel Cell	20,000						
5. Combined Heat and Power Equipment Repair and Rehabilitation	3,200,000	7,900,000	250,000				8,150,000
6. Energy Generation Improvements	1,300,000	40,000,000	60,000,000				100,000,000
7. Plant Electrical Reliability	1,802,000	2,300,000					2,300,000
Total Electrical Systems and Power Generation	6,322,000	50,200,000	60,250,000				110,450,000
Advanced Process Control & Automation							
8. Advanced Process Control and Automation	1,888,000	1,500,000					1,500,000

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Use of Funds (Combined)

<u>USE OF FUNDS (CONTD.)</u>	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>Construction Projects</u>							
Advanced Process Control & Automation							
9. Plant-wide Flowmeter Replacement Program		1,000,000	5,000,000	250,000			6,250,000
10. Treatment Plant Distributed Control System	2,500,000	500,000	500,000	500,000	500,000		2,000,000
Total Advanced Process Control & Automation	4,388,000	3,000,000	5,500,000	750,000	500,000		9,750,000
Site Facility Maintenance and Improvements							
Plantwide Facilities	645,000						
Unanticipated/Critical Repairs	250,000						
11. Equipment Replacement	2,992,000	1,663,000	1,663,000	1,663,000	1,663,000	1,663,000	8,315,000
12. Plant Infrastructure Improvements	5,843,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
13. Treatment Plant Engine Rebuild	1,868,000	1,000,000					1,000,000
14. Treatment Plant Fire Main Replacement	2,334,000	500,000					500,000
15. Treatment Plant Street Rehabilitation	834,000	500,000	500,000	500,000	500,000	500,000	2,500,000
16. Urgent and Unscheduled Treatment Plant Rehabilitation	2,237,000	1,500,000	1,500,000	1,500,000	1,500,000	1,500,000	7,500,000
Total Site Facility Maintenance and Improvements	17,003,000	6,163,000	4,663,000	4,663,000	4,663,000	4,663,000	24,815,000
South Bay Water Recycling							
Plant Backup Water Supply	2,856,000						
Recovery Act - South Bay Water Recycling Phase 1C	68,000						
SBWR Extension	8,692,000						
SBWR Reservoir Facility	474,000						

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Use of Funds (Combined)

USE OF FUNDS (CONT'D.)	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>Construction Projects</u>							
South Bay Water Recycling							
17. SBWR System Reliability and Infrastructure Replacement	2,000,000	1,500,000	1,500,000	1,500,000			4,500,000
Total South Bay Water Recycling	14,090,000	1,500,000	1,500,000	1,500,000			4,500,000
Total Construction Projects	77,296,000	66,277,000	192,143,000	122,916,000	115,313,000	54,663,000	551,312,000
<u>Non-Construction</u>							
<u>General Non-Construction</u>							
2014 Bond Cost of Issuance			1,700,000				1,700,000
2014 Transfer to Clean Water Financing Authority Debt Service Capital Program and Public Works Department Support Services Costs	574,000	653,000	660,000	667,000	674,000	681,000	3,335,000
Plant Master Plan	1,841,000						
SBWR Master Plan	2,446,000						
Transfer to Clean Water Financing Authority Debt Service Payment Fund	6,947,000	6,953,000	6,915,000	6,943,000	6,788,000	5,881,000	33,480,000
18. Payment for Clean Water Financing Authority Trustee Preliminary Engineering	5,000	5,000	5,000	5,000	5,000	5,000	25,000
19. Program Management	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
20. State Revolving Fund Loan Repayment	2,000,000	3,575,000	3,590,000	3,605,000	3,275,000	2,800,000	16,845,000
21. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	22,320,000
Total General Non-Construction	19,277,000	16,650,000	24,334,000	22,684,000	22,206,000	20,831,000	106,705,000

Water Pollution Control
2014-2018 Proposed Capital Improvement Program

Use of Funds (Combined)

<u>USE OF FUNDS (CONTD.)</u>	<u>Estimated</u> 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>Non-Construction</u>							
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	77,000	76,000	82,000	85,000	91,000	97,000	431,000
Total Contributions, Loans and Transfers to Special Funds	77,000	76,000	82,000	85,000	91,000	97,000	431,000
<u>Reserves</u>							
Reserve for Equipment Replacement		5,000,000					5,000,000
Total Reserves		5,000,000					5,000,000
Total Non-Construction	19,354,000	21,726,000	24,416,000	22,769,000	22,297,000	20,928,000	112,136,000
Ending Fund Balance	74,141,157	51,245,157	139,503,157	79,008,157	26,834,157	17,447,157	17,447,157*
TOTAL USE OF FUNDS	170,791,157	139,248,157	356,062,157	224,693,157	164,444,157	93,038,157	680,895,157*

* The 2013-2014 through 2016-2017 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control

2014-2018 Proposed Capital Improvement Program San José-Santa Clara Treatment Plant Capital Fund (512)

Statement of Source and Use of Funds

	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
<u>SOURCE OF FUNDS</u>							
Beginning Fund Balance *	114,314,043	74,141,157	51,245,157	139,503,157	79,008,157	26,834,157	74,141,157
Contributions, Loans and Transfers	26,402,000	37,666,000	57,289,000	38,175,000	41,421,000	43,677,000	218,228,000
Interest Income	327,000	450,000	985,000	928,000	727,000	563,000	3,653,000
Miscellaneous Revenue	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
Reserve for Encumbrances	14,058,114						
Revenue from Other Agencies	15,301,000	26,602,000	68,814,000	45,698,000	42,899,000	21,575,000	205,588,000
Sale of Bonds			177,340,000				177,340,000
TOTAL SOURCE OF FUNDS	170,791,157	139,248,157	356,062,157	224,693,157	164,444,157	93,038,157	680,895,157
<u>USE OF FUNDS</u>							
Construction Projects	77,296,000	66,277,000	192,143,000	122,916,000	115,313,000	54,663,000	551,312,000
Contributions, Loans and Transfers	77,000	76,000	82,000	85,000	91,000	97,000	431,000
Non-Construction	19,277,000	16,650,000	24,334,000	22,684,000	22,206,000	20,831,000	106,705,000
Reserves		5,000,000					5,000,000
Ending Fund Balance **	74,141,157	51,245,157	139,503,157	79,008,157	26,834,157	17,447,157	17,447,157
TOTAL USE OF FUNDS	170,791,157	139,248,157	356,062,157	224,693,157	164,444,157	93,038,157	680,895,157

* The 2014-2015 through 2017-2018 Beginning Fund Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

** The 2013-2014 through 2016-2017 Ending Fund Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.



2013-2014 CAPITAL BUDGET

2014-2018 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 2013-2014. The Detail of Non-Construction Projects section is abbreviated and provides information on the individual non-construction project, with funding in 2013-2014. On the Use of Funds statement, these projects are numbered.

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

1. Headworks No. 1 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. 2015
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

Description: This project will fund repairs to Headworks No. 1 (HW1), including rehabilitation of the bar screen, concrete, process piping, and replacement of aerated grit tank classifiers, discharge valves, and channel gate valves. The Plant has two headworks facilities. HW1 was built in the mid-1950s and early 1960s, and HW2 was built in 2008. A number of repairs are needed on HW1 to keep it in operating condition until additional enhancement work is completed on HW2.

Justification: This project will allow HW1 to remain in operation until a permanent solution is implemented with either HW2 becoming the sole headworks facility or a decision is made to fully rehabilitate HW1. These two options are currently being evaluated.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		300	300								300
Design		300	300							525	825
Bid & Award				25					25	25	50
Construction				975	175				1,150	3,600	4,750
Post Construction					25				25	25	50
TOTAL		600	600	1,000	200				1,200	4,175	5,975

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	600	600	1,000	200			1,200	4,175	5,975
TOTAL	600	600	1,000	200			1,200	4,175	5,975

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
 2014-2018 CIP - decrease of \$4.2 million due to deferment of portions of project until a thorough facility assessment is completed.

Notes:
 This project corresponds to Plant Master Plan Project No. 2.
 Prior to 2012-2013, this project was incorporated under the Headworks Enhancements Project. The Headworks Enhancements project was relititled "Headworks No. 2 Enhancement" in the 2013-2017 CIP, and broken up into three separate projects.
 Additional funding for this project is programmed beyond 2014-2018, and has an anticipated completion date of 2021.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

2. Headworks No. 2 Enhancement

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:	4th Qtr. 2011
Council District:	4	Revised Completion Date:	2nd Qtr. 2016
Location:	Water Pollution Control Plant		

Description: This project will make enhancements to Headworks No. 2 (HW2) to allow it to accommodate all dry weather flows when HW1 is taken out of service. HW2 was built in 2008 and designed to operate in parallel with HW1 to handle a combined peak wet weather flow of 400 mgd. Enhancements include: modifications to the raw sewage distribution structure, construction of a new 96-inch diameter connection pipeline, and re-routing of recycle flows and other process waters from HW1 to other structures and other improvements.

Justification: This project will improve the functional reliability of HW2, reduce solids settling, improve plant hydraulics, and allow for easier maintenance and operational flexibility.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		2	2								2
Design	716	163	163	700					700		1,579
Bid & Award		23	23		25				25		48
Construction	6	6,623	6,623	700	2,925	275			3,900		10,529
Post Construction					50	25			75		75
TOTAL	722	6,811	6,811	1,400	3,000	300			4,700		12,233

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	722	6,811	6,811	1,400	3,000	300			4,700		12,233
TOTAL	722	6,811	6,811	1,400	3,000	300			4,700		12,233

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

- 2011-2015 CIP - Increase of \$1.2 million due to increased project scope.
- 2012-2016 CIP - Increase of \$86.4 million due to the incorporation of the Headworks No. 2 Expansion project (shown as a stand-alone project in the 2011-2015 CIP) into this project.
- 2013-2017 CIP - decrease of \$83.8 million due to creation of a new project for Headworks No. 2 Expansion project.
- 2014-2018 CIP - Increase of \$4.5 million due to increased engineer's estimate for Phase 1.

Notes:

This project corresponds to Plant Master Plan Project No. 1. Prior to 2012-2013, this project was entitled "Headworks Enhancements." This project formerly included funding for expansion of HW2, however, that funding has been moved to a new Headworks No. 2 Expansion project as part of the 2013-2017 CIP. As a result, the completion date for this project has been revised.

FY Initiated:	2009-2010	Appn. #:	7073
Initial Project Budget:	\$4,000,000	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

3. Digester Rehabilitation

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2006
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	3rd Qtr. 2008
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2008
Council District:	4	Revised Completion Date:	2nd Qtr. 2021
Location:	Water Pollution Control Plant		

Description: This project will rehabilitate up to ten anaerobic digesters at the Water Pollution Control Plant. Funding included with this CIP is for the rehabilitation of the first four digesters. New digester covers and mixing systems, along with heating system upgrades will be included in the project. In addition, six dissolved air flotation units will be modified to allow for co-thickening and odor control upgrades. This project will also construct a new above ground gas manifold to connect all digester gas laterals.

Justification: The Plant has a total of 16 digesters all of which were built between 1956 and 1983. A number of digesters are out of service due to age and condition. The digesters that remain in operation are nearing the end of their useful life. This project ensures reliability in the digestion process.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development	488	365	365				100		100		953
Design	646	12,478	12,478				8,900	1,000	9,900		23,024
Bid & Award	1				50				50	50	101
Construction	1				46,950	700	700		48,350	49,900	98,251
Post Construction							50		50	50	100
TOTAL	1,136	12,843	12,843		47,000	700	9,750	1,000	58,450	50,000	122,429

FUNDING SOURCE SCHEDULE (000'S)											
	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
San José-Santa Clara Treatment Plant Capital Fund	1,136	12,843	12,843		47,000	700	9,750	1,000	58,450	50,000	122,429
TOTAL	1,136	12,843	12,843		47,000	700	9,750	1,000	58,450	50,000	122,429

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes In Project Cost:

- 2008-2012 CIP - Increase of \$1.6 million based on revised estimates during initial study.
- 2009-2013 CIP - Increase of \$84.0 million to fund construction/rehabilitation costs due to increased project scope.
- 2010-2014 CIP - Increase of \$11.5 million due to incorporation of digester gas line replacement.
- 2011-2015 CIP - decrease of \$34.0 million due to decrease in the number of digesters from eleven to four.
- 2012-2016 CIP - decrease of \$23.2 million due to realignment of project to the Plant Master Plan estimate.
- 2013-2017 CIP - Increase of \$24.2 million due to revisions in the cost estimation methodology.
- 2014-2018 CIP - Increase of \$57.3 million to align with the Master Plan recommendation to rehabilitate up to ten digesters.

Notes:

This project replaced the Scum Digestion project in 2009-2010. This project corresponds to Plant Master Plan Project No. 45 and 47-53.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

4. New Biosolids Facility

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. 2018
Location:	Water Pollution Control Plant		

Description: The project will study and evaluate mechanical sludge dewatering and drying technologies; construct new mechanical dewatering facilities, thermal drying facilities, covered lagoons, biosolids greenhouses, cake and emergency biosolids storage, and a sludge line; dispose of biosolids in the inactive lagoons; and reline the existing lagoons and drying beds. In 2013-2014, the amounts for the various cost elements will be refined in preparation for the sale of bonds. This project is part of "Package 2", as described in the Overview of this CIP.

Justification: City Council has directed the Administration to transition to a new biosolids dewatering and drying process by 2018 due to the projected closure of Newby Island Landfill, changes in future biosolids regulations, and odor impacts to the surrounding community. The transition will involve significant capital investment and major changes to Plant operations. Although the project timeline has been compressed and accelerated, the Plant will carefully evaluate available technologies and analyze costs and operational impacts before implementation.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		1,000	1,000	3,000	70,000	115,000	97,000	40,000	325,000		328,000
TOTAL		1,000	1,000	3,000	70,000	115,000	97,000	40,000	325,000		328,000

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,000	1,000	3,000	70,000	115,000	97,000	40,000	325,000		328,000
TOTAL	1,000	1,000	3,000	70,000	115,000	97,000	40,000	325,000		328,000

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - Increase of \$285 million due to acceleration of project start and compression of implementation schedule.

Notes:

This project corresponds to Plant Master Plan Project Nos. 42, 43, and 57-71. Prior to 2014-2018 this project was titled "Biosolids Transition Technology".

FY Initiated:	2012-2313	Appn. #:	7452
Initial Project Budget:	\$1,000,000	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

5. 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:	2nd Qtr. 2015
Location:	Water Pollution Control Plant		

Description: This project replaces or rehabilitates cooling towers, chillers, gas compressors, radiator assemblies, pumps, and other support systems at the Plant.

Justification: This project will keep the Plant's engines and auxiliary systems operating until they are replaced by gas turbines or newer internal combustion engines.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		800	800								800
Design		760	760	181					181		941
Bid & Award		10	10	31					31		41
Construction		1,630	1,630	7,642	225				7,887		9,497
Post Construction				46	25				71		71
TOTAL		3,200	3,200	7,900	250				8,150		11,350

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		3,200	3,200	7,900	250				8,150		11,350
TOTAL		3,200	3,200	7,900	250				8,150		11,350

ANNUAL OPERATING BUDGET IMPACT (000'S)										
None										

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).

Notes:

This project corresponds to Plant Master Plan Project No. 95 and 96.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

6. Energy Generation Improvements

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2012
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2013
Council District:	4	Revised Completion Date:	2nd Qtr. 2015
Location:	Water Pollution Control Plant		

Description: The Plant currently uses engine-generators to meet a portion of its power needs. While these systems meet current air regulations, it is anticipated these regulations will become more stringent in the future. The Plant will replace the existing engines with a lower emissions technology, such as fuel cells, gas turbines, or newer internal combustion engines. In 2013-2014, the amounts for the various cost elements will be refined in preparation for the sale of bonds. This project is part of the "Package 2" projects, described in the Overview of this CIP.

Justification: Energy generation capacity and reliability have become significant issues in recent years. The prompt development and construction of these projects will reduce the risk of system failure while providing robust and reliable energy generation facilities to power the Plant for decades as well as accommodating the added power loads required by the Biosolids project. Due to transition to a new technology, engineering evaluation and analysis are required to define technical requirements for the various combined heat and power improvements.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		1,300	1,300	40,000	60,000				100,000		101,300
TOTAL		1,300	1,300	40,000	60,000				100,000		101,300

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,300	1,300	40,000	60,000					100,000		101,300
TOTAL	1,300	1,300	40,000	60,000					100,000		101,300

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of \$100 million due to acceleration of the implementation schedule.

Notes:

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
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

7. Plant Electrical Reliability

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2003
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2014
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

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

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

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development	428	25	25								453
Design	6,289	76	76								6,365
Bld & Award	17	12	12								29
Construction	14,112	1,654	1,654	2,265					2,265		18,031
Post Construction	11	35	35	35					35		81
TOTAL	20,857	1,802	1,802	2,300					2,300		24,959

FUNDING SOURCE SCHEDULE (000'S)								
San José-Santa Clara Treatment Plant Capital Fund	20,857	1,802	1,802	2,300			2,300	24,959
TOTAL	20,857	1,802	1,802	2,300			2,300	24,959

ANNUAL OPERATING BUDGET IMPACT (000'S)							
None							

Major Changes In Project Cost:

- 2005-2009 CIP - Increase of \$33.5 million to fund construction/rehabilitation costs due to increased project scope.
- 2007-2011 CIP - Increase of \$15.6 million to fund construction/rehabilitation costs due to increased project scope.
- 2008-2012 CIP - Increase of \$26.5 million to fund construction/rehabilitation costs due to increased project scope.
- 2009-2013 CIP - decrease of \$3.0 million to reflect a project scope change.
- 2011-2015 CIP - Increase of \$11.4 million due to increased project scope.
- 2013-2017 CIP - decrease of \$64.7 million due to removal of the Gas Turbine/Internal Combustion Engine project scope, which is being refined and will be included as part of the Package 2 projects described in the Overview of this CIP.

Notes:

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

FY Initiated:	2003-2004	Appn. #:	4341
Initial Project Budget:	\$7,671,000.	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

8. Advanced Process Control and Automation

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2010
CSA Outcome:	Reliable Utility Infrastructure	Revised Start Date:	
Department:	Environmental Services	Initial Completion Date:	2nd Qtr. 2014
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

Description: This project installs various meters and monitoring equipment throughout the Plant to allow automatic collection of Plant process control data (such as dissolved oxygen levels and solids content of wastewater). In addition, a Plant-wide Automation Master Plan is being developed.

Justification: This project is needed to reduce workloads, improve operational reliability, and meet staff training needs. The ability to train staff using process simulation is becoming even more critical in light of recent retirements and other staff retention challenges at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development	34	63	63								97
Design	14	650	650								664
Bld & Award		50	50	25					25		75
Construction	35	600	600	1,450					1,450		2,085
Post Construction	69	525	525	25					25		619
TOTAL	152	1,888	1,888	1,500					1,500		3,540

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	152	1,888	1,888	1,500					1,500		3,540
TOTAL	152	1,888	1,888	1,500					1,500		3,540

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - decrease of \$5.9 million due to decreased scope.

2013-2017 CIP - decrease of \$2.1 million due to the establishment of the Treatment Plant Distributed Control System project as part of the approval of the 2011-2012 Mid-Year Budget Review.

2014-2018 CIP - increase of \$0.5 million due to updated cost estimate.

Notes:

This project corresponds to Plant Master Plan Project No. 89-92.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

9. Plant-wide Flowmeter Replacement Program

CSA:	Environmental and Utility Services	Initial Start Date:	3rd Qtr. 2013
CSA Outcome:	Reliable Utility Infrastructure	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 project will establish a program to replace existing flowmeters throughout the Plant, which are essential for efficient Plant operation. Meter readings provide information used to control equipment operation and treatment processes. The Plant currently has hundreds of meters measuring liquid, sludge, and gas streams. The budget shown below will fund program set-up and the first phase of replacements.

Justification: Many existing flowmeters at the Plant are aging or inaccurate. Some meters are over 30 years old. Due to their age, they are difficult to repair since components are no longer fabricated. Other meters lack accuracy due to poor selection, installation, or maintenance. Establishing a replacement program will allow the Plant to move towards creating a replacement schedule and master instrument list that identifies consistent meter criteria for each process application.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development				1,000	5,000	250			6,250		6,250
TOTAL				1,000	5,000	250			6,250		6,250

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund				1,000	5,000	250			6,250		6,250
TOTAL				1,000	5,000	250			6,250		6,250

ANNUAL OPERATING BUDGET IMPACT (000'S)										
None										

Major Changes in Project Cost:
None

Notes:

FY Inflated:	2013-2014	Appn. #:	
Initial Project Budget:	\$6,250,000	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

10. 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. 2017
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	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Design	60	100	100	500	500	500	500		2,000		2,160
Construction	4	2,400	2,400								2,404
TOTAL	64	2,500	2,500	500	500	500	500		2,000		4,564

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
	64	2,500	2,500	500	500	500	500		2,000		4,564
TOTAL	64	2,500	2,500	500	500	500	500		2,000		4,564

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of \$0.5 million due to higher than expected consultant costs.

Notes:

This project was established as part of the approval of the 2011-2012 Mid-Year Budget Review. Prior to this action, this project was part of the Equipment Replacement and Advanced Process Control and Automation projects.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

11. Equipment Replacement

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 allocation provides for ongoing replacement and rehabilitation of equipment at the Plant. Equipment anticipated to be replaced or rehabilitated includes air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments, and other equipment as required. Existing engine-generators and engine-blowers will be retrofitted to meet Air Quality Board emission requirements.

Justification: Replacement and rehabilitation of WPCP equipment is necessary as a result of wear, obsolescence, or regulatory requirements. Replacement and rehabilitation will ensure continued efficient operation of the Plant facilities.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Equipment		2,992	2,992	1,663	1,663	1,663	1,663	1,663	8,315		
TOTAL		2,992	2,992	1,663	1,663	1,663	1,663	1,663	8,315		

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		2,992	2,992	1,663	1,663	1,663	1,663	1,663	8,315		
TOTAL		2,992	2,992	1,663	1,663	1,663	1,663	1,663	8,315		

ANNUAL OPERATING BUDGET IMPACT (000'S)										
None										

Major Changes in Project Cost:
N/A

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

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

12. Plant Infrastructure 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 allocation provides for improvements, rehabilitation, or replacement of existing Plant Infrastructure. Examples of the ongoing replacement and rehabilitation work include roof and handrail replacement, tunnel and concrete repairs, yard piping improvements, telecommunication systems upgrade, and Plant support system / building improvements.		
Justification:	Many mechanical, electrical, and structural assets at the Plant are in poor condition due to age and wear. Rehabilitation, improvements, and replacement of capital infrastructure are necessary to maintain process viability and to ensure regulatory compliance, structural integrity, reliability, functionality, and safety of Plant buildings and process facilities.		

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		953	953	930	1,000	1,000	1,000	1,000	4,930		
Design		647	647								
Bld & Award		59	59								
Construction		3,658	3,658	60					60		
Post Construction Program Management		526	526	10					10		
TOTAL		5,843	5,843	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	5,843	5,843	1,000	1,000	1,000	1,000	1,000	1,000	5,000
TOTAL	5,843	5,843	1,000	1,000	1,000	1,000	1,000	1,000	5,000

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

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

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

13. Treatment Plant Engine Rebuild

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. 2014
Council District:	4	Revised Completion Date:	
Location:	Water Pollution Control Plant		

Description: This project will fund original equipment manufacturer parts for rebuilding the engines in Building 40 and the Pump and Engine Building.

Justification: This project will improve the reliability of the Water Pollution Control Plant's engines and keep them operational until they are replaced with new gas turbines or lateral combustion engines.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Construction	96	1,868	1,868	1,000					1,000		2,964
TOTAL	96	1,868	1,868	1,000					1,000		2,964

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	96	1,868	1,868	1,000					1,000		2,964
TOTAL	96	1,868	1,868	1,000					1,000		2,964

ANNUAL OPERATING BUDGET IMPACT (000'S)										
None										

Major Changes In Project Cost:
None

Notes:
This project was previously included as part of the Plant Infrastructure Improvements project and was established as part of the approval of the 2011-2012 Mid-Year Budget Review.

FY Initiated:	2011-2012	Appn. #:	7393
Initial Project Budget:	\$3,000,000	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

14. Treatment Plant Fire Main Replacement

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. 2013
Council District:	4	Revised Completion Date:	2nd Qtr. 2014
Location:	Water Pollution Control Plant		

Description: The fire main piping system, which is part of the Fire Protection System (FPS) for the WPCP consists of approximately 15,000 linear feet of pipes ranging from 6, 8, 10, and 12 inches; two 100-HP electric pumps; fire hydrants; and associated valves. The fire main piping was installed as the Plant expanded over the past 50 years. A condition assessment was conducted in 2007 and revealed that most of the existing pipe is corroded. This funding rehabilitates the system.

Justification: This project will ensure the reliability of the fire protection system at the Plant.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior	2012-13	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year	Beyond	Project
	Years	Appn.	Estimate						Total	5-Year	Total
Design	53	118	118								171
Bid & Award		21	21								21
Construction	7	2,175	2,175	500					500		2,682
Post Construction		20	20								20
TOTAL	60	2,334	2,334	500					500		2,894

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	Prior	2012-13	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year	Beyond	Project
	Years	Appn.	Estimate						Total	5-Year	Total
	60	2,334	2,334	500					500		2,894
TOTAL	60	2,334	2,334	500					500		2,894

ANNUAL OPERATING BUDGET IMPACT (000'S)										
None										

Major Changes in Project Cost:

2014-2018 CIP - increase of \$0.5 million due to higher than expected construction costs.

Notes:

This project was previously included as part of the Plant Infrastructure Improvements project and was established as part of the approval of the 2011-2012 Mid-Year Budget Review.

FY Initiated:	2012-2013	Appn. #:	7397
Initial Project Budget:	\$2,400,000	USGBC LEED:	N/A

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

15. Treatment Plant Street Rehabilitation

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 involves phased rehabilitation of the Plant's street network, parking lots, and other landscaped areas. The Plant has approximately five miles of streets and access roads.

Justification: This project is needed to rehabilitate and maintain the streets, curb and gutters, and parking lots at the Plant.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		125	125	500	500	500	500	600	2,500		
Design		52	52								
Bld & Award		8	8								
Construction		639	639								
Post Construction		10	10								
TOTAL		834	834	500	500	500	500	500	2,500		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	834	834	500	600	500	500	500	500	2,500
TOTAL	834	834	500	500	500	500	500	500	2,500

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes In Project Cost:

N/A

Notes:

Project schedule dates and select budget information are not provided due to the ongoing nature of this project. This project was previously included as part of the Plant Infrastructure Improvements appropriation and became a stand alone project as part of the 2011-2012 Mid-Year Budget Review. Prior to 2014-2018 this project was titled "Treatment Plant Street Resurfacing".

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

16. Urgent and Unscheduled Treatment Plant Rehabilitation

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

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

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		1,100	1,100	1,500	1,500	1,500	1,500	1,500	7,500		
Design		300	300								
Construction		837	837								
TOTAL		2,237	2,237	1,500	1,500	1,500	1,500	1,500	7,500		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	2,237	2,237	1,500	1,500	1,500	1,500	1,500	1,500	7,500		
TOTAL	2,237	2,237	1,500	1,500	1,500	1,500	1,500	1,500	7,500		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

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

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Construction Projects

17. 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	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Construction		2,000	2,000	1,500	1,500	1,500			4,500		6,500
TOTAL		2,000	2,000	1,500	1,500	1,500			4,500		6,500

FUNDING SOURCE SCHEDULE (000'S)											
		2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
San José-Santa Clara Treatment Plant Capital Fund		2,000	2,000	1,500	1,500	1,500			4,500		6,500
TOTAL		2,000	2,000	1,500	1,500	1,500			4,500		6,500

ANNUAL OPERATING BUDGET IMPACT (000'S)

Nona

Major Changes in Project Cost:

Nona

Notes:

Prior to 2012-2013, this funding was included as part of the SBWR Master Plan project, but has been converted into a distinct project to more accurately reflect the purpose of these funds.

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

Water Pollution Control
2014-2018 Proposed Capital Improvement Program
Detail of Non-Construction Projects

18. 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	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	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

19. 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	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Development		1,000	1,000	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		1,000	1,000	1,000	1,000	1,000	1,000	1,000	5,000		
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		1,000	1,000	1,000	1,000	1,000	1,000	1,000	5,000		
TOTAL		1,000	1,000	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
2014-2018 Proposed Capital Improvement Program
Detail of Non-Construction Projects

20. 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 Capital Improvement Program.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Program Management		2,000	2,000	3,575	3,590	3,605	3,275	2,800	16,845		
TOTAL		2,000	2,000	3,575	3,590	3,605	3,275	2,800	16,845		
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund		2,000	2,000	3,575	3,590	3,605	3,275	2,800	16,845		
TOTAL		2,000	2,000	3,575	3,590	3,605	3,275	2,800	16,845		

Notes:

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

Appn. #: 7481

21. 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	2012-13 Appn.	2012-13 Estimate	2013-14	2014-15	2015-16	2016-17	2017-18	5-Year Total	Beyond 5-Year	Project Total
Debt Service	58,807	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	2,649	88,240
TOTAL	58,807	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	2,649	88,240
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	58,807	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	2,649	88,240
TOTAL	58,807	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	2,649	88,240

Appn. #: 6590

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2013-2014 CAPITAL BUDGET

2014-2018 CAPITAL IMPROVEMENT PROGRAM

WATER POLLUTION CONTROL

SUMMARY OF PROJECTS THAT
START AFTER 2013-2014

SUMMARY OF RESERVES

EXPLANATION OF FUNDS

FLOW AND PRIORITY OF FUNDS

The Summary of Projects that Start after 2013-2014 includes those projects that have funding budgeted starting after 2013-2014. 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

2014-2018 Proposed Capital Improvement Program

Summary of Projects that Start after 2013-2014

Project Name:	2014 Bond Cost of Issuance	Initial Start Date:	2014-2015
5-Year CIP Budget:	\$1,700,000	Revised Start Date:	
Total Budget:	\$1,700,000	Initial End Date:	2014-2015
Council District:	4	Revised End Date:	
USGBC LEED:	N/A		

Description: This funding provides for the cost of Issuing the 2014 Revenue Bonds for the construction of Package 2. Package 2 includes new technology projects that replace existing treatment process technologies with brand new technologies and facilities.

Project Name:	2014 Transfer to Clean Water Financing Authority Debt Service	Initial Start Date:	3rd Qtr. 2014
5-Year CIP Budget:	\$24,000,000	Revised Start Date:	
Total Budget:	\$24,000,000	Initial End Date:	2nd Qtr 2044
Council District:	4	Revised End Date:	
USGBC LEED:	N/A		

Description: This funding provides for the payment of the 2014 Revenue Bonds for the construction of Package 2. Package 2 includes new technology projects that replace existing treatment process technologies with brand new technologies and facilities. The moneys are transferred to the Clean Water Financing Authority Debt Service Payment Fund.

Project Name:	East Primary Rehabilitation, Seismic Retrofit, and Odor Control	Initial Start Date:	3rd Qtr. 2009
5-Year CIP Budget:	\$7,000,000	Revised Start Date:	3rd Qtr. 2010
Total Budget:	\$82,025,000	Initial End Date:	4th Qtr. 2012
Council District:	4	Revised End Date:	4th Qtr. 2021
USGBC LEED:	N/A		

Description: This project includes rehabilitation of existing primary clarifiers, including coating of concrete and replacement of clarifier mechanisms with corrosion resistant materials. It also includes covering a portion or all of the primary treatment area for odor control and installing an odor control treatment system. Preliminary engineering work was performed in prior fiscal years. The 2012-2013 budget funded a condition assessment study. Design will begin in 2016-2017.

Water Pollution Control

2014-2018 Proposed Capital Improvement Program

Summary of Projects that Start after 2013-2014

Project Name:	Secondary and Nitrification Clarifier Rehabilitation	Initial Start Date:	3rd Qtr. 2009
5-Year CIP Budget:	\$5,400,000	Revised Start Date:	
Total Budget:	\$39,724,000	Initial End Date:	2nd Qtr. 2024
Council District:	4	Revised End Date:	
USGBC LEED:	N/A		

Description: This project includes phased rehabilitation of existing secondary and nitrification clarifiers. Condition assessment studies were completed in 2012 and recommend a three phase implementation plan. The first phase of work will begin in 2016-2017.

Water Pollution Control

2014-2018 Proposed Capital Improvement Program

Summary of Reserves

Project Name:	Reserve for Equipment Replacement	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 which, due to age, wear, or obsolescence, must be replaced for the efficient operation of the WPCP.

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Water Pollution Control

2014-2018 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 are accounted for by the City of San José, as administering agency, through the San José-Santa Clara Water Pollution Control 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 Treatment Plant Operating and Capital Funds, respectively. The Tributary Agencies include the City of Milpitas, City of Cupertino, Burbank and Sunol Sanitary Districts, 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.

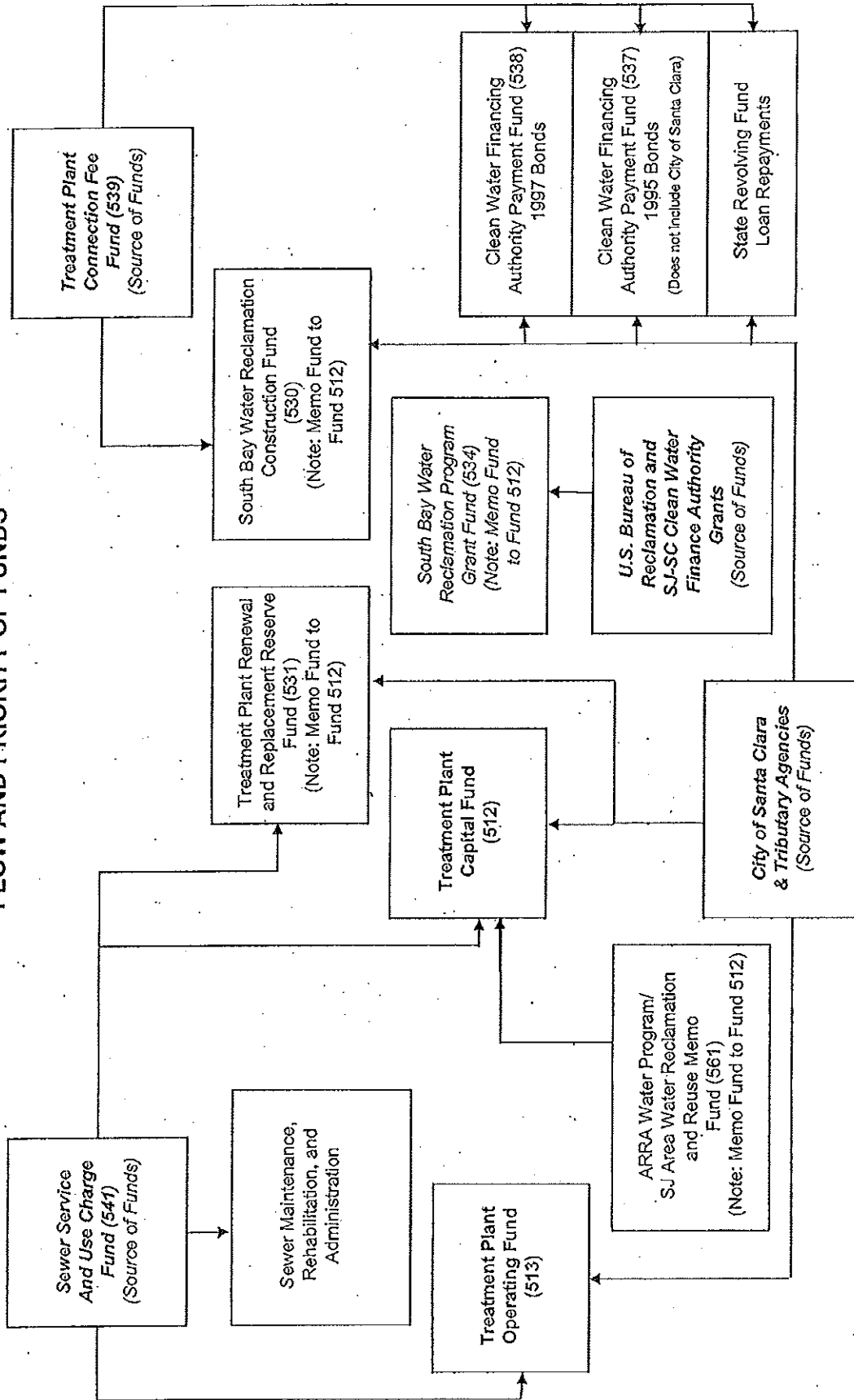
The San José Sewer Service and Use Charge Fund was established in the San José Municipal Code Section 15.12.640 in August 1959. This fund is the depository of revenues

from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system. A portion of these moneys are transferred to the Treatment Plant Operating and Capital Funds to pay for the City of San José's share of operating and capital costs of the Water Pollution Control 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 Treatment Plant Operating and Capital Funds.

The Treatment Plant Capital Fund provides all moneys used for capital projects. Included in this fund is the Treatment Plant Renewal and Replacement Fund. This fund was established to satisfy the Water Pollution Control Plant's federal and State grant agreements as well as to comply with bond covenants. Also included in the Treatment Plant Capital Fund is the American Recovery and Reinvestment Act (ARRA) Water Program/SJ Area Water Reclamation and Reuse Memo Fund, which accounts for ARRA 2009 money for activities related to South Bay Water Recycling projects.

WATER POLLUTION CONTROL PLANT FLOW AND PRIORITY OF FUNDS



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