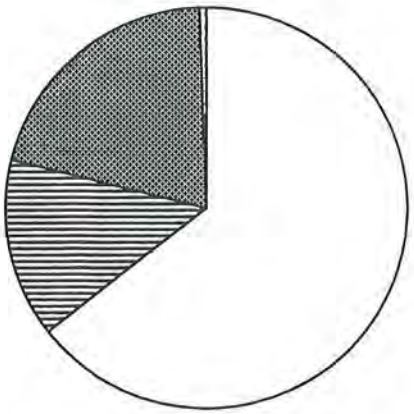
2013-2014 Capital Budget

2014-2018 Capital Improvement Program

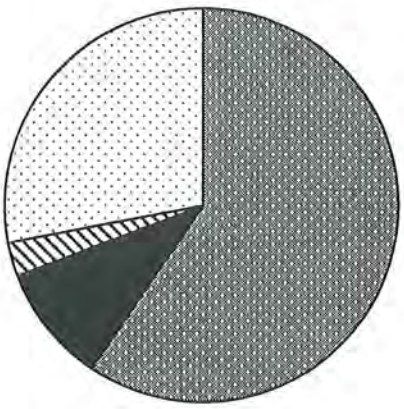
Water Pollution Control

WATER POLLUTION CONTROL
2014-2018 Capital Improvement Program

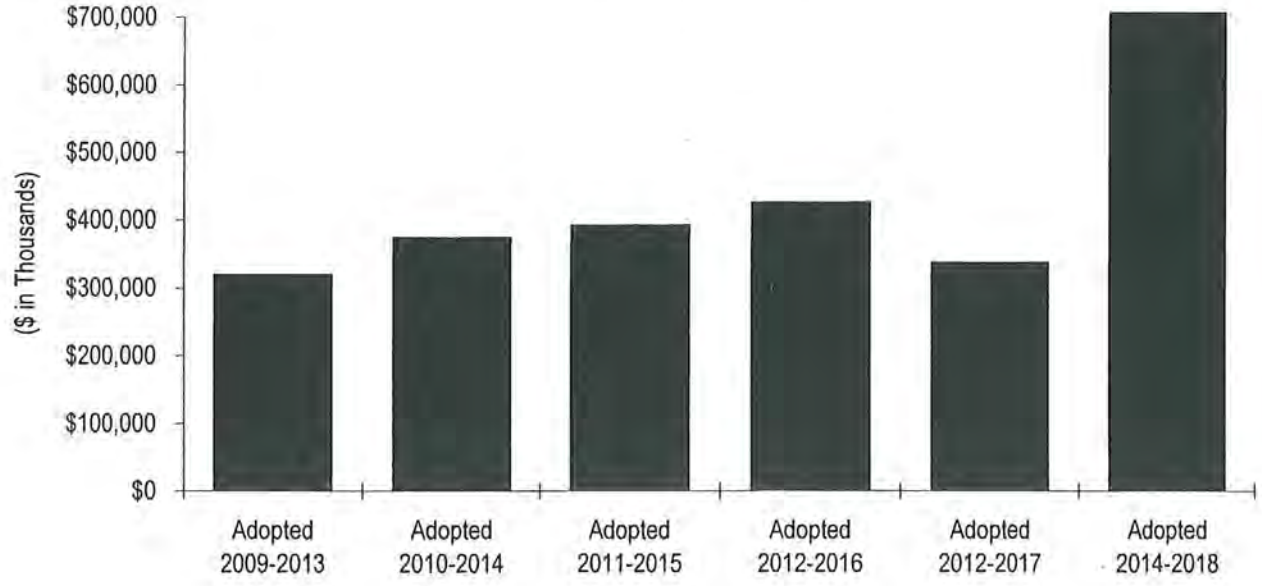
2013-2014 Adopted Source of Funds



2013-2014 Adopted Use of Funds



CIP History



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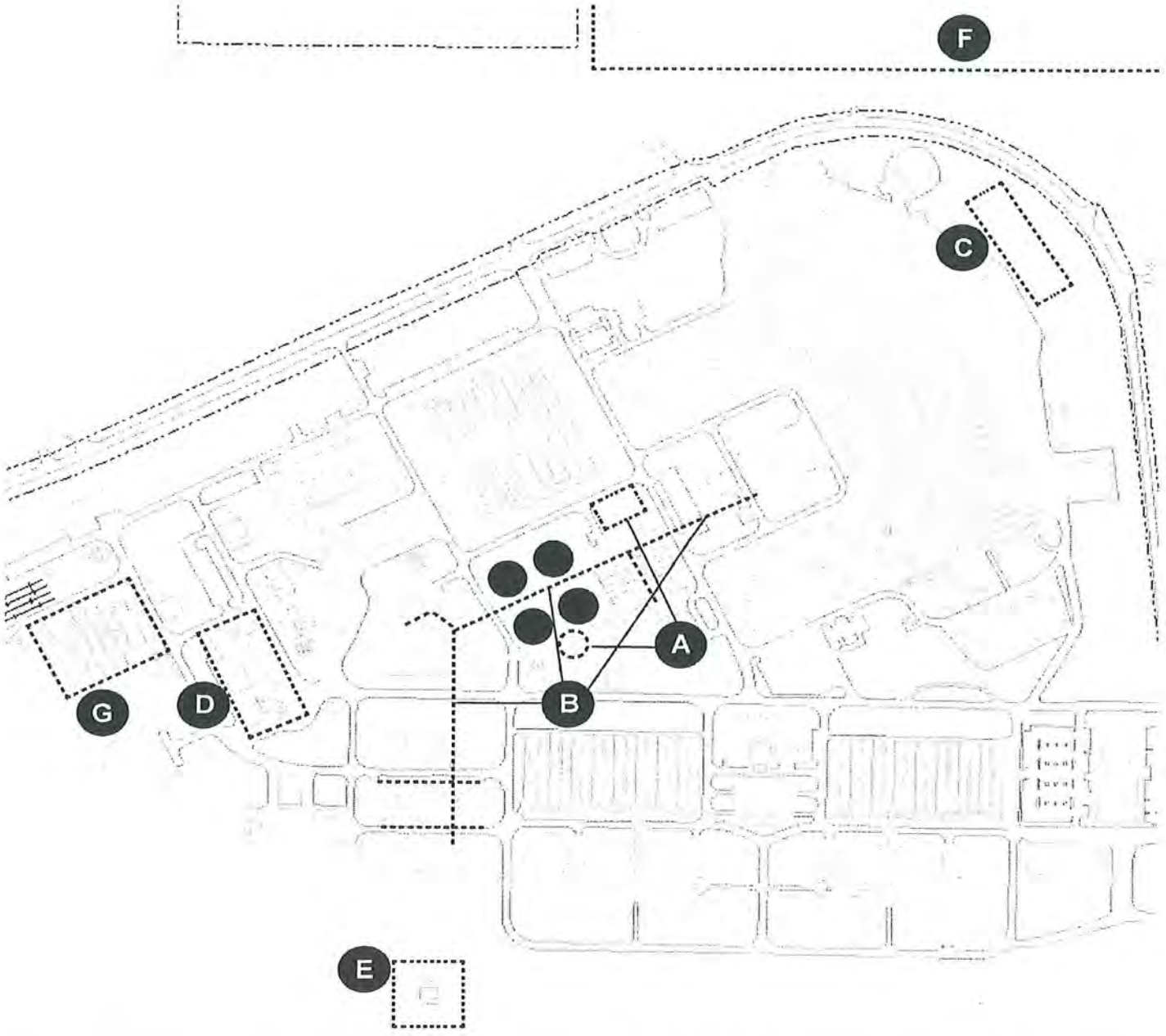
Water Pollution Control

2014-2018 Adopted 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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INTRODUCTION

PLANT INFRASTRUCTURE	
ACRES OF LAND	2,684
AVERAGE DRY WEATHER INFLUENT CAPACITY (MILLIONS OF GALLONS PER DAY)	167
AVERAGE DRY WEATHER INFLUENT FLOW (MILLIONS OF GALLONS PER DAY)	111
TONS OF SLUDGE PRODUCED EACH SEASON	50,000
AVERAGE MEGAWATTS PRODUCED	8.35

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.

The 2014-2018 Adopted Capital Improvement Program (CIP) provides funding of $725.1 million, of which $183.5 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 Adopted 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.

PROGRAM PRIORITIES AND OBJECTIVES

Water Pollution Control Plant

The development of this Adopted 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. The first amendment to the Draft PMP Environmental Impact Report is anticipated to be released in Fall 2013, and certification of the report is targeted for the end of November 2013. This Adopted 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.

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 José'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 Adopted 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.

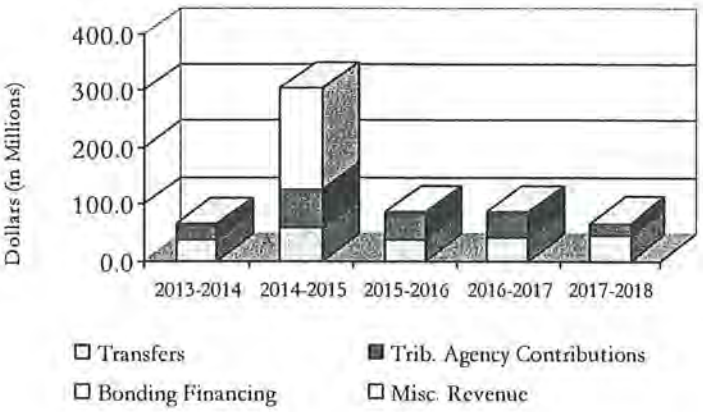
SOURCES OF FUNDING

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.

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 $68.6 million (51.1%) 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 Adopted CIP, contributions from the City of Santa Clara and other agencies total $203.6 million, which represents a $130.2 million (177.6%) increase compared to the 2013-2017 Adopted CIP.

Approximately 53% of the Adopted 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 $6.0 million annually rising to approximately $10.3 million in 2018-2019 to reflect the amortization of the principal loan amount. The Adopted 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 2014-2015 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

SOURCES OF FUNDING

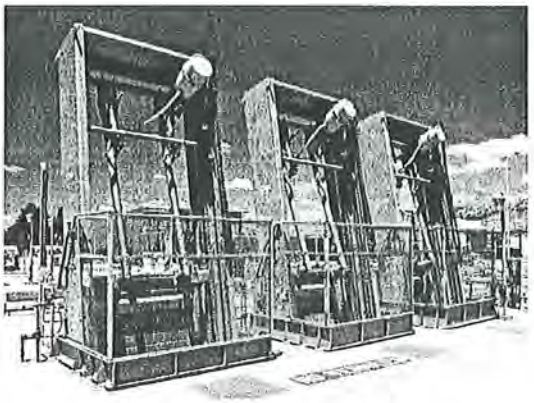
costs, and cash flows will need to be developed. Staff anticipates that in late 2013, project planning will be much further along, which will facilitate the development of a more refined financial plan.

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 and 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).	$1.7 million	2nd 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.	$11.2 million	2nd 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.	$0.2 million	2nd Quarter 2023

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.	$7.7 million	4th Quarter 2021
Iron Salt Feed Station	Design and construction of a feed station to add iron salts to incoming wastewater, to help control the formation of hydrogen sulfide gas, reduce corrosion and odor, and enhance the settling of sludge. Hydrogen sulfide gas is sometimes present at high levels in the Plant's digesters, and is a potential air quality problem. Work will include construction of a chemical feed station and a concrete containment structure, as well as installation of 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.	$1.9 million	2nd Quarter 2014

PROGRAM HIGHLIGHTS

Wastewater Secondary Treatment (Cont'd.)

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

Secondary Aeration Tanks

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 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 26 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.	$8.6 million	2nd Quarter 2024
Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection	Construction of a new pipeline connection between Biological Nutrients Removal (BNR) 1 and 2.	$0.9 million	2nd Quarter 2021

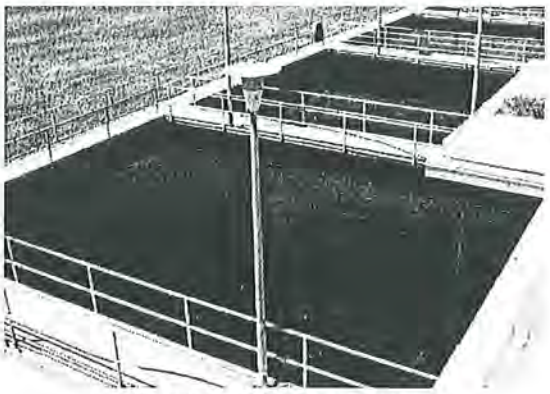
Wastewater Tertiary Treatment

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.

PROGRAM HIGHLIGHTS

Wastewater Tertiary Treatment (Cont'd.)

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, 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, accelerated implementation of the New Biosolids Facility project, and completion of the Dissolved Air Flotation Rehabilitation and Odor Control 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.	$70.9 million	2nd Quarter 2021

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. 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.	$10.2 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.	$2.7 million	2nd Quarter 2014

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.	$2.7 million	2nd Quarter 2014
Plant-wide Flowmeter Replacement Program	Replace flowmeters throughout the Plant.	$6.3 million	2nd Quarter 2016
Treatment Plant Distributed Control System	Upgrade and convert system hardware and software components.	$2.0 million	2nd Quarter 2017

PROGRAM HIGHLIGHTS

Site Facility Improvements

Fire Main Replacement - Phase 2

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 Adopted CIP includes $28.4 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.

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.	$9.2 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.	$6.4 million	Ongoing
Treatment Plant Engine Rebuild	Funding for original equipment manufacturer parts for rebuilding the engines in Building 40 and the Pump and Engine Building.	$1.0 million	2nd Quarter 2014
Treatment Plant Fire Main Replacement	Rehabilitation of the Plant's fire main piping system.	$1.5 million	2nd Quarter 2014
Treatment Plant Street Rehabilitation	Rehabilitation of the Plant's street network, parking lots, and other hardscaped areas.	$2.8 million	Ongoing
Urgent and Unscheduled Treatment Plant Rehabilitation	Timely response to unanticipated maintenance and repair needs at the Plant.	$7.5 million	Ongoing

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. 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 2014, 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 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 Adopted Five-Year CIP includes $10.3 million for SBWR System Reliability and Infrastructure Replacement Project, with $7.3 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.	$5.3 million	2nd Quarter 2016
Plant Backup Water Supply	Build out of backup water facilities to provide an alternative water source for customers when the South Bay Water Recycling operations are interrupted.	$1.2 million	2nd Quarter 2014
SBWR Extension	Expansion of the SBWR system through the construction of pipeline and ancillary distribution system projects.	$3.8 million	Ongoing

PROGRAM HIGHLIGHTS

Reserves

As in prior years, the 2014-2018 Adopted 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.

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
Electrical Systems and Power Generation	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 Adopted 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.

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.

The Iron Salt Feed Station project will include the design and construction of a feed station to add iron salts to incoming wastewater, to help control the formation of hydrogen sulfide gas, reduce corrosion and odor, and enhance the settling of sludge. The increased operating costs associated with this project will be offset by operational efficiencies and lower maintenance costs. Therefore, there is no impact to the Operating Budget.

COUNCIL-APPROVED REVISIONS TO THE PROPOSED CAPITAL IMPROVEMENT PROGRAM

The City Council approved the rebudgeting of $44,232,000 for twenty-seven projects: Digester Rehabilitation ($12,445,000), Headworks No. 2 Enhancement ($6,474,000), SBWR Extension ($3,787,000), Secondary and Nitrification Clarifier Rehabilitation ($3,162,000), Combined Heat and Power Equipment Repair and Rehabilitation ($2,034,000), Iron Salt Feed Station ($1,900,000), Plant Infrastructure Improvements ($1,410,000), Advanced Process Control and Automation ($1,236,000), Plant Backup Water Supply ($1,200,000), Treatment Plant Fire Main Replacement ($1,033,000), Alternative Disinfection ($980,000), Program Management ($923,000), Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection ($876,000), Equipment Replacement ($859,000), New Filter Complex ($854,000), Filter Improvements ($800,000), SBWR System Reliability and Infrastructure Replacement ($800,000), East Primary Rehabilitation, Seismic Retrofit, and Odor Control ($715,000), Headworks No. 1 Repair and Rehabilitation ($450,000), Public Art ($443,000), SBWR Master Plan ($419,000), Plant Electrical Reliability ($372,000), Treatment Plant Street Rehabilitation ($310,000), Plant Master Plan ($276,000), Dissolved Air Flotation ($264,000), Headworks No. 2 Expansion ($200,000), and SBWR Reservoir Facility ($10,000).

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 Adopted 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
San José-Santa Clara Treatment Plant Capital Fund (512)							
Beginning Fund Balance	114,314,043	118,373,157	51,245,157	139,503,157	79,008,157	26,834,157	118,373,157 *
Sale of Bonds			177,340,000				177,340,000
Revenue from Other Agencies:							
Federal Government							
- 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
Water Pollution Control Plant User Agencies							
- 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
Santa Clara Valley Water District							
- SBWR Strategic Plan Contribution	1,200,000						
- SCVWD - Advanced Water Treatment Contribution	1,000,000						
Contributions, Loans and Transfers from:							
Special Funds							
- 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

2014-2018 Adopted 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
San José-Santa Clara Treatment Plant Capital Fund (512)							
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	**170,791,157**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157** *
TOTAL SOURCE OF FUNDS	**170,791,157**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157** *

* 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 Adopted Capital Improvement Program

Use of Funds (Combined)

USE OF FUNDS	Estimated 2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	5-Year Total
Construction Projects							
Public Art							
Public Art	171,000	457,000	30,000	3,000			490,000
Total Public Art	**171,000**	**457,000**	**30,000**	**3,000**			**490,000**
Preliminary Wastewater Treatment							
1. Headworks No. 1 Repair and Rehabilitation	150,000	1,450,000	200,000				1,650,000
2. Headworks No. 2 Enhancement	337,000	7,874,000	3,000,000	300,000			11,174,000
3. Headworks No. 2 Expansion	300,000	200,000					200,000
Total Preliminary Wastewater Treatment	**787,000**	**9,524,000**	**3,200,000**	**300,000**			**13,024,000**
Primary Wastewater Treatment							
4. East Primary Rehabilitation, Seismic Retrofit, and Odor Control	1,000,000	715,000			2,000,000	5,000,000	7,715,000
5. Iron Salt Feed Station	18,000	1,900,000					1,900,000
Total Primary Wastewater Treatment	**1,018,000**	**2,615,000**			**2,000,000**	**5,000,000**	**9,615,000**
Secondary Wastewater Treatment							
Fine Bubble Membrane Diffuser Conversion	1,000,000						
6. Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection		876,000					876,000
7. Secondary and Nitrification Clarifier Rehabilitation	8,000	3,162,000			1,400,000	4,000,000	8,562,000
Total Secondary Wastewater Treatment	**1,008,000**	**4,038,000**			**1,400,000**	**4,000,000**	**9,438,000**

2014-2018 Adopted 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
Construction Projects							
Tertiary Wastewater Treatment							
8. Alternative Disinfection	20,000	980,000					980,000
9. Filter Improvements	22,000	800,000					800,000
10. New Filter Complex	146,000	854,000					854,000
Total Tertiary Wastewater Treatment	**188,000**	**2,634,000**					**2,634,000**
Biosolids							
Inactive Lagoons Bio-Solids Removal	624,000						
11. Digester Rehabilitation	398,000	12,445,000	47,000,000	700,000	9,750,000	1,000,000	70,895,000
12. Dissolved Air Flotation Rehabilitation and Odor Control	736,000	264,000					264,000
13. 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	**2,758,000**	**15,709,000**	**117,000,000**	**115,700,000**	**106,750,000**	**41,000,000**	**396,159,000**
Electrical Systems and Power Generation							
Fuel Cell	20,000						
14. Combined Heat and Power Equipment Repair and Rehabilitation	1,166,000	9,934,000	250,000				10,184,000
15. Energy Generation Improvements	1,300,000	40,000,000	60,000,000				100,000,000
16. Plant Electrical Reliability	1,430,000	2,672,000					2,672,000
Total Electrical Systems and Power Generation	**3,916,000**	**52,606,000**	**60,250,000**				**112,856,000**
Advanced Process Control & Automation							
17. Advanced Process Control and Automation	652,000	2,736,000					2,736,000

Water Pollution Control

2014-2018 Adopted 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
Construction Projects							
Advanced Process Control & Automation							
18. Plant-wide Flowmeter Replacement Program		1,000,000	5,000,000	250,000			6,250,000
19. Treatment Plant Distributed Control System	2,500,000	500,000	500,000	500,000	500,000		2,000,000
Total Advanced Process Control & Automation	**3,152,000**	**4,236,000**	**5,500,000**	**750,000**	**500,000**		**10,986,000**
Site Facility Maintenance and Improvements							
Plantwide Facilities	645,000						
Unanticipated/Critical Repairs	250,000						
20. Equipment Replacement	2,133,000	2,522,000	1,663,000	1,663,000	1,663,000	1,663,000	9,174,000
21. Plant Infrastructure Improvements	4,433,000	2,410,000	1,000,000	1,000,000	1,000,000	1,000,000	6,410,000
22. Treatment Plant Engine Rebuild	1,868,000	1,000,000					1,000,000
23. Treatment Plant Fire Main Replacement	1,301,000	1,533,000					1,533,000
24. Treatment Plant Street Rehabilitation	524,000	810,000	500,000	500,000	500,000	500,000	2,810,000
25. 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	**13,391,000**	**9,775,000**	**4,663,000**	**4,663,000**	**4,663,000**	**4,663,000**	**28,427,000**
South Bay Water Recycling							
Recovery Act - South Bay Water Recycling Phase 1C	68,000						
SBWR Reservoir Facility	464,000	10,000					10,000
26. Plant Backup Water Supply	1,656,000	1,200,000					1,200,000
27. SBWR Extension	4,905,000	3,787,000					3,787,000

2014-2018 Adopted 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
Construction Projects							
South Bay Water Recycling							
28. SBWR System Reliability and Infrastructure Replacement	1,200,000	2,300,000	1,500,000	1,500,000			5,300,000
Total South Bay Water Recycling	**8,293,000**	**7,297,000**	**1,500,000**	**1,500,000**			**10,297,000**
Total Construction Projects	**34,682,000**	**108,891,000**	**192,143,000**	**122,916,000**	**115,313,000**	**54,663,000**	**593,926,000**
Non-Construction							
General Non-Construction							
2014 Bond Cost of Issuance			1,700,000				1,700,000
2014 Transfer to Clean Water Financing Authority Debt Service			6,000,000	6,000,000	6,000,000	6,000,000	24,000,000
Capital Program and Public Works Department Support Service Costs	574,000	653,000	660,000	667,000	674,000	681,000	3,335,000
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
29. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
30. Plant Master Plan	1,565,000	276,000					276,000
31. Preliminary Engineering	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	5,000,000
32. Program Management	1,077,000	4,498,000	3,590,000	3,605,000	3,275,000	2,800,000	17,768,000
33. SBWR Master Plan	2,027,000	419,000					419,000
34. 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	**17,659,000**	**18,268,000**	**24,334,000**	**22,684,000**	**22,206,000**	**20,831,000**	**108,323,000**

Water Pollution Control

2014-2018 Adopted 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
Non-Construction							
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**
Reserves							
Reserve for Equipment Replacement		5,000,000					5,000,000
Total Reserves		**5,000,000**					**5,000,000**
Total Non-Construction	**17,736,000**	**23,344,000**	**24,416,000**	**22,769,000**	**22,297,000**	**20,928,000**	**113,754,000**
Ending Fund Balance	118,373,157	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**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157***

* 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 Adopted 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
SOURCE OF FUNDS							
Beginning Fund Balance *	114,314,043	118,373,157	51,245,157	139,503,157	79,008,157	26,834,157	118,373,157
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**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157**
USE OF FUNDS							
Construction Projects	34,682,000	108,891,000	192,143,000	122,916,000	115,313,000	54,663,000	593,926,000
Contributions, Loans and Transfers	77,000	76,000	82,000	85,000	91,000	97,000	431,000
Non-Construction	17,659,000	18,268,000	24,334,000	22,684,000	22,206,000	20,831,000	108,323,000
Reserves		5,000,000					5,000,000
Ending Fund Balance **	118,373,157	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**	**183,480,157**	**356,062,157**	**224,693,157**	**164,444,157**	**93,038,157**	**725,127,157**

* 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.

1. Headworks No. 1 Repair and Rehabilitation

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

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

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	150	150					150		300
Design		300		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**	**150**	**1,450**	**200**				**1,650**	**4,175**	**5,975**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		600	150	1,450	200				1,650	4,175	5,975
TOTAL		**600**	**150**	**1,450**	**200**				**1,650**	**4,175**	**5,975**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

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 retitled "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
Initial Project Budget: $5,975,000
Appn. #: 7448
USGBC LEED: N/A

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	149	7,174	2,925	275			10,374		10,529
Post Construction					50	25			75		75
TOTAL	**722**	**6,811**	**337**	**7,874**	**3,000**	**300**			**11,174**		**12,233**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	722	6,811	337	7,874	3,000	300			11,174		12,233
TOTAL	**722**	**6,811**	**337**	**7,874**	**3,000**	**300**			**11,174**		**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

3. Headworks No. 2 Expansion

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. 2023
Location:	Water Pollution Control Plant		

Description: The funding included in this CIP will fund a study to evaluate two operational scenarios for the Headworks and develop a comprehensive flow management strategy for the Plant Headworks. Headworks No. 2 (HW2) was built in 2008 and designed to operate in parallel with Headworks No. 1 (HW1) to handle a combined peak wet weather flow of 400 mgd. Due to the age and condition of HW1, one option being explored is to decommission HW1 by expanding HW2 to allow it to serve as the sole headworks. A second option is to continue operating both HW1 and HW2, which would require full refurbishment of HW1 and eliminate the need to expand HW2. Depending on the outcome of the study and option selected, additional funding may be incorporated into future CIPs to either this HW2 Expansion project or the HW1 Repair and Rehabilitation project.

Justification: The study will provide additional information needed for informed decision making with regard to proceeding with a HW2 expansion build out, or full refurbishment of HW1, with the goal of selecting the option that best supports ongoing reliability, operational flexibility, ease of operation, and decreases the frequency of maintenance.

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		500	300	200					200		500
Design										2,350	2,350
Bid & Award										50	50
Construction										76,400	76,400
Post Construction										100	100
TOTAL		**500**	**300**	**200**					**200**	**78,900**	**79,400**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		500	300	200					200	78,900	79,400
TOTAL		**500**	**300**	**200**					**200**	**78,900**	**79,400**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

This project corresponds to Plant Master Plan Project No. 3.
Prior to 2012-2013, this project was incorporated under the Headworks Enhancements Project. The Headworks Enhancement project was retitled "Headworks No. 2 Enhancement" in the 2013-2017 CIP, and broken up into three separate projects. Initial start and completion dates displayed above, as well as the 2014-2018 CIP budget, refer to the study component only.

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

4. 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. 2021
Location:	Water Pollution Control Plant		

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 2013-2014 budget will continue to fund the condition assessment study. Design is anticipated to start in 2016-2017.

Justification: This project is needed to ensure the structural integrity and reliability of the aging clarifiers.

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	30	1,715	1,000	715			2,000		2,715	73,230	76,975
Construction								5,000	5,000	50	5,050
TOTAL	**30**	**1,715**	**1,000**	**715**			**2,000**	**5,000**	**7,715**	**73,280**	**82,025**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	30	1,715	1,000	715			2,000	5,000	7,715	73,280	82,025
TOTAL	**30**	**1,715**	**1,000**	**715**			**2,000**	**5,000**	**7,715**	**73,280**	**82,025**

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.
2014-2018 CIP - decrease of $11,000 which represents the remaining balance in 2012-2013 that was not rebudgeted.

Notes:

This project corresponds to Draft Plant Master Plan Projects No. 10 and 11.
The East Primary Concrete Tank Repair and Stainless Steel Conversion became a stand-alone project in 2010-2011. Prior to this, funding for this project was included in the Plant Infrastructure Improvements project. The Initial Start Date above refers to the date when these activities were initiated as part of the Plant Infrastructure Improvements project. Prior to the 2013-2017 CIP, this project was titled East Primary Concrete Tank Repair and Stainless Steel Conversion.

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

5. 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:**	2nd Qtr. 2014
Location:	Water Pollution Control Plant		

Description: This project will construct a permanent chemical 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 salt to incoming wastewater will improve Plant operation by enhancing the settling of sludge in the primary clarifiers, and reducing corrosion and odor.

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	75	3	3								78
Design		540	15	525					525		540
Bid & Award		22		22					22		22
Construction		1,331		1,331					1,331		1,331
Post Construction		22		22					22		22
TOTAL	**75**	**1,918**	**18**	**1,900**					**1,900**		**1,993**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	75	1,918	18	1,900					1,900		1,993
TOTAL	**75**	**1,918**	**18**	**1,900**					**1,900**		**1,993**

ANNUAL OPERATING BUDGET IMPACT (000'S)

Cost Offset					(881)	(881)	(881)	(881)			
Operating					881	881	881	881			
TOTAL											

Major Changes in Project Cost:

2014-2018 CIP - decrease of $.347 million due to scope revision.

Notes:

This project corresponds to Draft Plant Master Plan Project No. 14.

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

6. Biological Nutrients Removal 1 and Biological Nutrients Removal 2 Connection

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. 2016
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2021
Location:	Water Pollution Control Plant		

Description: This project will construct a new pipeline connection between Biological Nutrients Removal (BNR) 1 and 2. BNR 1 and BNR 2 both have clarifiers and aeration basins. BNR 1 aeration has sufficient capacity to treat the entire flow coming through the Treatment Plant but only has half of the needed clarifier capacity. Interconnecting BNR 1 and BNR 2 allows the entire flow to be treated through BNR 1 aeration and use only clarifier capacity in BNR 2, while not powering BNR 2 aeration.

Justification: Connecting BNR 1 and BNR 2 will decrease energy costs and mitigate the need to rehabilitate or increase the clarifier capacity in BNR 1 to match the aeration basin capacity. Energy costs will decrease because BNR 1 uses engines powered by digester gas, while BNR 2 uses electricity, which must be purchased.

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		876		876					876		876
Design										1,497	1,497
Construction										12,113	12,113
TOTAL		**876**		**876**					**876**	**13,610**	**14,486**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		876		876					876	13,610	14,486
TOTAL		**876**		**876**					**876**	**13,610**	**14,486**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

Notes:

This project corresponds to Plant Master Plan Project No. 18.

FY Initiated:	2012-2013	**Appn. #:**	7450
Initial Project Budget:	$14,486,000	**USGBC LEED:**	N/A

7. Secondary and 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:**	
Location:	Water Pollution Control Plant		

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

Justification: This project is needed to ensure the structural integrity and reliability of the aging clarifiers.

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	1,136	3,170	8	3,162			1,400		4,562		5,706
Design	18							4,000	4,000		4,018
Construction										30,000	30,000
TOTAL	**1,154**	**3,170**	**8**	**3,162**			**1,400**	**4,000**	**8,562**	**30,000**	**39,724**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,154	3,170	8	3,162			1,400	4,000	8,562	30,000	39,724
TOTAL	**1,154**	**3,170**	**8**	**3,162**			**1,400**	**4,000**	**8,562**	**30,000**	**39,724**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $13.0 million due to revised estimate.

Notes:

This project corresponds to Draft Plant Master Plan Project No. 21, 22, and 23.
Condition assessment studies were completed in 2012. Funding included with this CIP will be for modifications to one clarifier, followed by performance monitoring, before undertaking extensive rehabilitation on the remaining 26 secondary clarifiers and 15 nitrification clarifiers. Prior to the 2013-2017 CIP, this was an ongoing project, however with the refinement of the project schedule, it has been converted to a finite project.

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

8. Alternative Disinfection

CSA:	Environmental and Utility Services	**Initial Start Date:**	2nd Qtr. 2004
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	3rd Qtr. 2007
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2014
Location:	Water Pollution Control Plant		

Description: This project funds the design and construction of facilities to replace the gaseous chlorine and sulfer dioxide system with a liquid sodium hypochlorite and sodium bisulfite system. The 2013-2014 funding shown below specifically funds the decommissioning of the chlorine and sulfur dioxide facilities.

Justification: This project is needed to reduce risk associated with the potential release of sulfur dioxide and chlorine gas.

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		30	20	10					10		30
Design	702	90		90					90		792
Bid & Award		15		15					15		15
Construction	10,139	840		840					840		10,979
Post Construction		25		25					25		25
TOTAL	**10,841**	**1,000**	**20**	**980**					**980**		**11,841**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	10,841	1,000	20	980					980		11,841
TOTAL	**10,841**	**1,000**	**20**	**980**					**980**		**11,841**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2005-2009 CIP - increase of $4.5 million to allocate funds from prior Reserve for Alternate Disinfection.
2007-2011 CIP - increase of $1.8 million due to higher than anticipated construction costs.
2009-2013 CIP - increase of $3.6 million due to higher than anticipated construction costs.
2013-2017 CIP - increase of $1.0 million to fund demolition/decommissioning work.

Notes:

The estimated start date reflects the start of the alternative disinfection study, which preceded the construction project described here. Construction began in 2007-2008. The estimated end date reflects the anticipated project decommissioning completion.

FY Initiated:	2003-2004	**Appn. #:**	4679
Initial Project Budget:	$500,000	**USGBC LEED:**	N/A

9. Filter Improvements

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2011
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: This project replaces the existing filter underdrain system and filter media. Funding included in 2012-2013 had provided for the conversion of one filter bay to the new underdrain system on a full-scale demonstration basis. Funding included in the 2014-2018 CIP allows for miscellaneous filter valve replacements and repairs while operation and performance of the new underdrain system is being evaluated. Depending on the outcome of the demonstration project, some or all of the remaining filters may be converted to the new underdrain system and filter media.

Justification: The existing filters at the Water Pollution Control Plant were constructed in the 1970s and require interim improvements to ensure continued regulatory compliance and operational reliability while awaiting transition to a new filter complex.

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 Design Construction		822	22	800					800		822
TOTAL		**822**	**22**	**800**					**800**		**822**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		822	22	800					800		822
TOTAL		**822**	**22**	**800**					**800**		**822**

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.

Notes:

This project corresponds to Plant Master Plan Project No. 31 and 34.
This project became a stand-alone project in 2010-2011. Previously, it was part of the Plant Infrastructure Improvements project, which is ongoing in nature. A finite schedule was established for this project with the 2013-2017 CIP. The above initial start and completion dates refer only to the demonstration phase of this project.

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

10. New Filter Complex

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. 2020
Location:	Water Pollution Control Plant		

Description: This project will study, evaluate, and pilot test candidate replacement filter technologies in advance of full-scale transition to a new filter complex. A wide variety of new filter technologies are available, with new technologies continuing to be introduced into the market. This funding will provide for the selection and field testing of one or more new filter technologies. Depending on the outcome of the field testing, additional funding for full scale project implementation may be incorporated in future CIPs. The construction of the new filter complex would be part of the "Package 2" project, described in the Overview of this CIP.

Justification: Due to the age and condition of the existing filters, a significant investment would be required to refurbish and retain them for future use. In lieu of (or in combination with limited refurbishment), a new filter complex could be constructed utilizing new filter technologies at a potentially lower cost. Evaluation and pilot testing of new filter technologies will ensure that the most appropriate and cost effective solution is selected for 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		1,000	146	854					854	1,000	2,000
Design										25,000	25,000
Construction										107,000	107,000
TOTAL		**1,000**	**146**	**854**					**854**	**133,000**	**134,000**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,000	146	854					854	133,000	134,000
TOTAL		**1,000**	**146**	**854**					**854**	**133,000**	**134,000**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $133.0 million reflects the design and construction costs not included in the 2013-2017 CIP.

Notes:

This project corresponds to Plant Master Plan Project No. 33.
Prior to the 2014-2018 CIP this project was titled "New Filter Technology".

FY Initiated:	2012-2013	**Appn. #:**	7451
Initial Project Budget:	$1,000,000	**USGBC LEED:**	N/A

11. 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	12,168	33	12,445			8,900	1,000	22,345		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**	**12,533**	**398**	**12,445**	**47,000**	**700**	**9,750**	**1,000**	**70,895**	**50,000**	**122,429**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	1,136	12,533	398	12,445	47,000	700	9,750	1,000	70,895	50,000	122,429
TOTAL	**1,136**	**12,533**	**398**	**12,445**	**47,000**	**700**	**9,750**	**1,000**	**70,895**	**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

12. Dissolved Air Flotation Rehabilitation and Odor Control

CSA:	Environmental and Utility Services	**Initial Start Date:**	4th Qtr. 2010
CSA Outcome:	Reliable Utility Infrastructure	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	1st Qtr. 2012
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2014
Location:	Water Pollution Control Plant		

Description: This project will replace the existing pipe manifold and the pressure flow discharge valves in the Sludge Control building, and may incorporate some improvements to the dissolved air flotation (DAF) tanks. The project was originally conceived as a stand-alone project but may be integrated with the Digester Rehabilitation project in future CIPs, since these two projects are inter-related.

Justification: The existing sludge manifold and flow discharge valves are leaking and deteriorated requiring excessive maintenance and repairs. This project is needed to ensure the structural integrity of the pipe manifold and sludge pumping 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		217	217								217
Design	82	33	33								115
Bid & Award		12	12								12
Construction		726	474	252					252		726
Post Construction		12		12					12		12
TOTAL	**82**	**1,000**	**736**	**264**					**264**		**1,082**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	82	1,000	736	264					264		1,082
TOTAL	**82**	**1,000**	**736**	**264**					**264**		**1,082**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2013-2017 CIP - decrease of $241,000 due to revised cost estimate.
2014-2018 CIP - decrease of $156,000 due to revised cost estimate.

Notes:

Prior to the 2013-2017 CIP this project was entitled "Dissolved Air Flotation Dissolution Improvements". The project name changed in order to better reflect the project scope.

FY Initiated:	2010-2011	**Appn. #:**	7225
Initial Project Budget:	$1,479,000	**USGBC LEED:**	N/A

13. 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 retire 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	1,000				4,000		5,000
Design					10,000	16,000	13,000	4,000	43,000		43,000
Construction					59,000	99,000	84,000	36,000	278,000		278,000
TOTAL		**1,000**	**1,000**	**3,000**	**70,000**	**115,000**	**97,000**	**40,000**	**325,000**		**326,000**

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		326,000
TOTAL		**1,000**	**1,000**	**3,000**	**70,000**	**115,000**	**97,000**	**40,000**	**325,000**		**326,000**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2014-2018 CIP - increase of $325 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". The Expenditure Schedule is based on the design-bid-build estimate in the Plant Master Plan.

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

14. 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 auxillary 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	366	575					575		941
Bid & Award		10		41					41		41
Construction		1,630		9,272	225				9,497		9,497
Post Construction				46	25				71		71
TOTAL		**3,200**	**1,166**	**9,934**	**250**				**10,184**		**11,350**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		3,200	1,166	9,934	250				10,184		11,350
TOTAL		**3,200**	**1,166**	**9,934**	**250**				**10,184**		**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

15. 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

16. 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
Bid & Award	17	12	12								29
Construction	14,112	1,654	1,317	2,602					2,602		18,031
Post Construction	11	35		70					70		81
TOTAL	**20,857**	**1,802**	**1,430**	**2,672**					**2,672**		**24,959**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	20,857	1,802	1,430	2,672					2,672		24,959
TOTAL	**20,857**	**1,802**	**1,430**	**2,672**					**2,672**		**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

17. 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	589	61					61		664
Bid & Award		50		75					75		75
Construction	35	600		2,050					2,050		2,085
Post Construction	69	525		550					550		619
TOTAL	**152**	**1,888**	**652**	**2,736**					**2,736**		**3,540**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	152	1,888	652	2,736					2,736		3,540
TOTAL	**152**	**1,888**	**652**	**2,736**					**2,736**		**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

18. 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				200					200		200
Design				800	100				900		900
Construction					4,900	250			5,150		5,150
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 Initiated:	2013-2014	**Appn. #:**	7598
Initial Project Budget:	$6,250,000	**USGBC LEED:**	N/A

19. 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. Ugrading 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	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

20. 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	2,133	2,522	1,663	1,663	1,663	1,663	9,174		
TOTAL		**2,992**	**2,133**	**2,522**	**1,663**	**1,663**	**1,663**	**1,663**	**9,174**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		2,992	2,133	2,522	1,663	1,663	1,663	1,663	9,174		
TOTAL		**2,992**	**2,133**	**2,522**	**1,663**	**1,663**	**1,663**	**1,663**	**9,174**		

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

21. Plant Infrastructure Improvements

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

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

Description: This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure. Examples of the ongoing replacement and rehabilitation work include 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								
Bid & Award		59	59								
Construction		3,658	2,774	944					944		
Post Construction Program Management		526		536					536		
TOTAL		**5,843**	**4,433**	**2,410**	**1,000**	**1,000**	**1,000**	**1,000**	**6,410**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		5,843	4,433	2,410	1,000	1,000	1,000	1,000	6,410		
TOTAL		**5,843**	**4,433**	**2,410**	**1,000**	**1,000**	**1,000**	**1,000**	**6,410**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

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

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

22. 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

23. 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 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	53	118	118								171
Bid & Award		21	21								21
Construction	7	2,175	1,162	1,513					1,513		2,682
Post Construction		20		20					20		20
TOTAL	**60**	**2,334**	**1,301**	**1,533**					**1,533**		**2,894**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	60	2,334	1,301	1,533					1,533		2,894
TOTAL	**60**	**2,334**	**1,301**	**1,533**					**1,533**		**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

24. Treatment Plant Street Rehabilitation

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

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

Description: This project involves phased rehabilitation of the Plant's street network, parking lots, and other hardscaped 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	500	2,500		
Design		52	52								
Bid & Award		8	8								
Construction		639	339	300					300		
Post Construction		10		10					10		
TOTAL		**834**	**524**	**810**	**500**	**500**	**500**	**500**	**2,810**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		834	524	810	500	500	500	500	2,810		
TOTAL		**834**	**524**	**810**	**500**	**500**	**500**	**500**	**2,810**		

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

25. 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	7,500		
TOTAL		**2,237**	**2,237**	**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

26. Plant Backup Water Supply

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2011
CSA Outcome:	Healthy Streams, Rivers, Marsh and Bay	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2012
Council District:	City-wide	**Revised Completion Date:**	2nd Qtr. 2014
Location:	City-wide		

Description: The project will construct a new potable water pipeline to the Plant that will increase water service reliability by providing a backup potable water supply for Plant operations. The new service lateral would connect to the existing potable service lateral on Nortech Parkway, and traverse easterly across the Plant buffer land and redirect northerly along Zanker Road.

Justification: The current potable water supply to the Plant is undersized for current and future activities, antiquated and subject to unanticipated system failure. Maintaining potable water service to the Plant is essential to ensure that Plant operations and maintenance are maintained uninterrupted 24 hours per day, every day of the year.

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	132	534	334	200					200		666
Construction	7	2,206	1,322	1,000					1,000		2,329
TOTAL	**139**	**2,740**	**1,656**	**1,200**					**1,200**		**2,995**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	139	2,740	1,656	1,200					1,200		2,995
TOTAL	**139**	**2,740**	**1,656**	**1,200**					**1,200**		**2,995**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

Operating costs for the backup systems will depend upon the frequency and duration of service interruptions as well as required exercise of valves and other appurtenances. Current estimates suggest that the operation of the backup facility (not related to service interruptions) should not require more than ten hours per year. As a result, no O&M cost has been assigned to this project.

FY Initiated:	2011-2012	**Appn. #:**	7362
Initial Project Budget:	$3,000,000	**USGBC LEED:**	N/A

27. SBWR Extension

CSA:	Environmental and Utility Services	**Initial Start Date:**	Ongoing
CSA Outcome:	Healthy Streams, Rivers, Marsh and Bay	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	Ongoing
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: This project expands the SBWR system through the construction of pipeline and ancillary distribution system projects. The SBWR system expansion is limited to extensions that are justified by projected water revenues, grant funded, or funded by developers or other government agencies (i.e. Santa Clara Valley Water District). The funding allocated to this project is offset by grants, which have been secured through 2013-2014. No revenue from Plant Tributary Agencies or City Sanitary Sewer rate payers will be used to fund this appropriation.

Justification: The SBWR Extension project includes construction of extensions to the existing recycled water distribution system that will provide additional capacity and result in increased water sales and system revenue with the goal of bringing the SBWR system to full cost recovery.

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 Design Bid & Award Construction Program Management		8,692	4,905	3,787					3,787		
TOTAL		**8,692**	**4,905**	**3,787**					**3,787**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		8,692	4,905	3,787					3,787		
TOTAL		**8,692**	**4,905**	**3,787**					**3,787**		

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. Per the contract with the Santa Clara Valley Water District (SCVWD), which began on July 1, 2010, the City and the SCVWD will review the net costs of operating the SBWR and the Advanced Water Treatment Facility (AWTF) beginning in 2012. This is a cost-sharing project with City costs not to exceed $2 million annually. Annual Operating Budget impacts are evaluated on an ongoing basis. Prior to the 2013-2017 CIP this project was titled "Revised South Bay Action Plan - SBWR Extension".

FY Initiated:	Ongoing	**Appn. #:**	6589
Initial Project Budget:		**USGBC LEED:**	N/A

28. 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	1,200	2,300	1,500	1,500			5,300		6,500
TOTAL		**2,000**	**1,200**	**2,300**	**1,500**	**1,500**			**5,300**		**6,500**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		2,000	1,200	2,300	1,500	1,500			5,300		6,500
TOTAL		**2,000**	**1,200**	**2,300**	**1,500**	**1,500**			**5,300**		**6,500**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

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

29. 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

30. Plant Master Plan

CSA: Environmental and Utility Services
CSA Outcome: Healthy Streams, Rivers, Marsh and Bay
Department: Environmental Services
Description: The Plant Master Plan process has been a three-year effort to provide the San José/Santa Clara Water Pollution Control Plant with a phased program of recommended wastewater treatment facilities and management programs to accommodate planned growth and to meet regulatory requirements through the year 2040. A preferred alternative was approved by the City Council in April 2011, and will be analyzed under the California Environmental Quality Act. The remaining funds are required to support staff and consultant services working on the EIR certification.

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
Master Plan/Study	8,239	1,841	1,565	276					276		10,080
TOTAL	**8,239**	**1,841**	**1,565**	**276**					**276**		**10,080**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	8,239	1,841	1,565	276					276		10,080
TOTAL	**8,239**	**1,841**	**1,565**	**276**					**276**		**10,080**

Notes:
This project was formerly titled "Bio-solids Master Plan."

Appn. #: 4120

31. 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

32. 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	1,077	4,498	3,590	3,605	3,275	2,800	17,768		
TOTAL		**2,000**	**1,077**	**4,498**	**3,590**	**3,605**	**3,275**	**2,800**	**17,768**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		2,000	1,077	4,498	3,590	3,605	3,275	2,800	17,768		
TOTAL		**2,000**	**1,077**	**4,498**	**3,590**	**3,605**	**3,275**	**2,800**	**17,768**		

Notes:

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

Appn. #: 7481

33. SBWR Master Plan

CSA: Environmental and Utility Services

CSA Outcome: Healthy Streams, Rivers, Marsh and Bay

Department: Environmental Services

Description: The SBWR Master Plan will assess the ability of existing infrastructure to meet current and future recycled water demands and recommend improvements to enhance system reliability, maintain water quality, and increase recycled water use. In August 2011, the United States Bureau of Reclamation awarded the City up to $1,268,000 to conduct a feasibility study for improvements and expansions to the SBWR system. On June 19, 2012, the City Council approved a resolution to execute a cost sharing agreement between the City of San José and the Santa Clara Valley Water District to share the cost of developing a SBWR Master Plan, estimated to cost up to $2.4 million with each party contributing up to $1.2 million; and to share in reimbursements from the grant of up to $1.2 million for costs associated with development of the plan.

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
Master Plan/Study	51	2,446	2,027	419					419		2,497
TOTAL	**51**	**2,446**	**2,027**	**419**					**419**		**2,497**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	51	2,446	2,027	419					419		2,497
TOTAL	**51**	**2,446**	**2,027**	**419**					**419**		**2,497**

Appn. #: 7364

34. 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 Projects with Close-Out Costs Only in 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 Projects with Close-Out Costs Only in 2013-2014 includes those projects that are near completion with only minimal costs (typically inspection services and program management) to finish the project budgeted in 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.

Summary of Projects that Start after 2013-2014

Project Name:	**2014 Bond Cost of Issuance**	**Initial Start Date:**	3rd Qtr. 2014
5-Year CIP Budget:	$1,700,000	**Revised Start Date:**	
Total Budget:	$1,700,000	**Initial End Date:**	2nd Qtr. 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, described in the Overview section, includes new technology projects that replace existing treatment process technologies with new technologies and facilities.

Project Name:	**2014 Transfer to Clean Water Financing Authority Debt Service**	**Initial Start Date:**	3rd Qtr. 2014
		Revised Start Date:	
5-Year CIP Budget:	$24,000,000	**Initial End Date:**	2nd Qtr 2044
Total Budget:	$24,000,000	**Revised End Date:**	
Council District:	4		
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 new technologies and facilities. The moneys are transferred to the Clean Water Financing Authority Debt Service Payment Fund.

Summary of Projects with Close-out Costs Only in 2013-2014

Project Name:	**SBWR Reservoir Facility**	**Initial Start Date:**	3rd Qtr. 2008
5-Year CIP Budget:	$10,000	**Revised Start Date:**	3rd Qtr. 2009
Total Budget:	$5,910,000	**Initial End Date:**	2nd Qtr. 2011
Council District:	4	**Revised End Date:**	2nd. Qtr. 2014
USGBC LEED:	N/A		

Description: The South Bay Advanced Recycled Water Treatment facility project is a jointly funded project with the Santa Clara Valley Water District (SCVWD) and includes construction of all facilities necessary to produce 8 million gallons of high-purity, recycled water that will be blended with the existing recycled water supply. The project includes 10 million gallons per day (MGD) of microfiltration (MF) capacity, 8 MGD of Reverse Osmosis (RO) capacity, and 10 MGD of Ultra Violet (UV) disinfection capacity. The project will also include all site work, structural, architectural, geotechnical, building mechanical, pumping, piping, controls and instrumentation, chemical storage and delivery systems, product storage tanks, and electrical improvements necessary to provide a fully functioning system.

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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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.

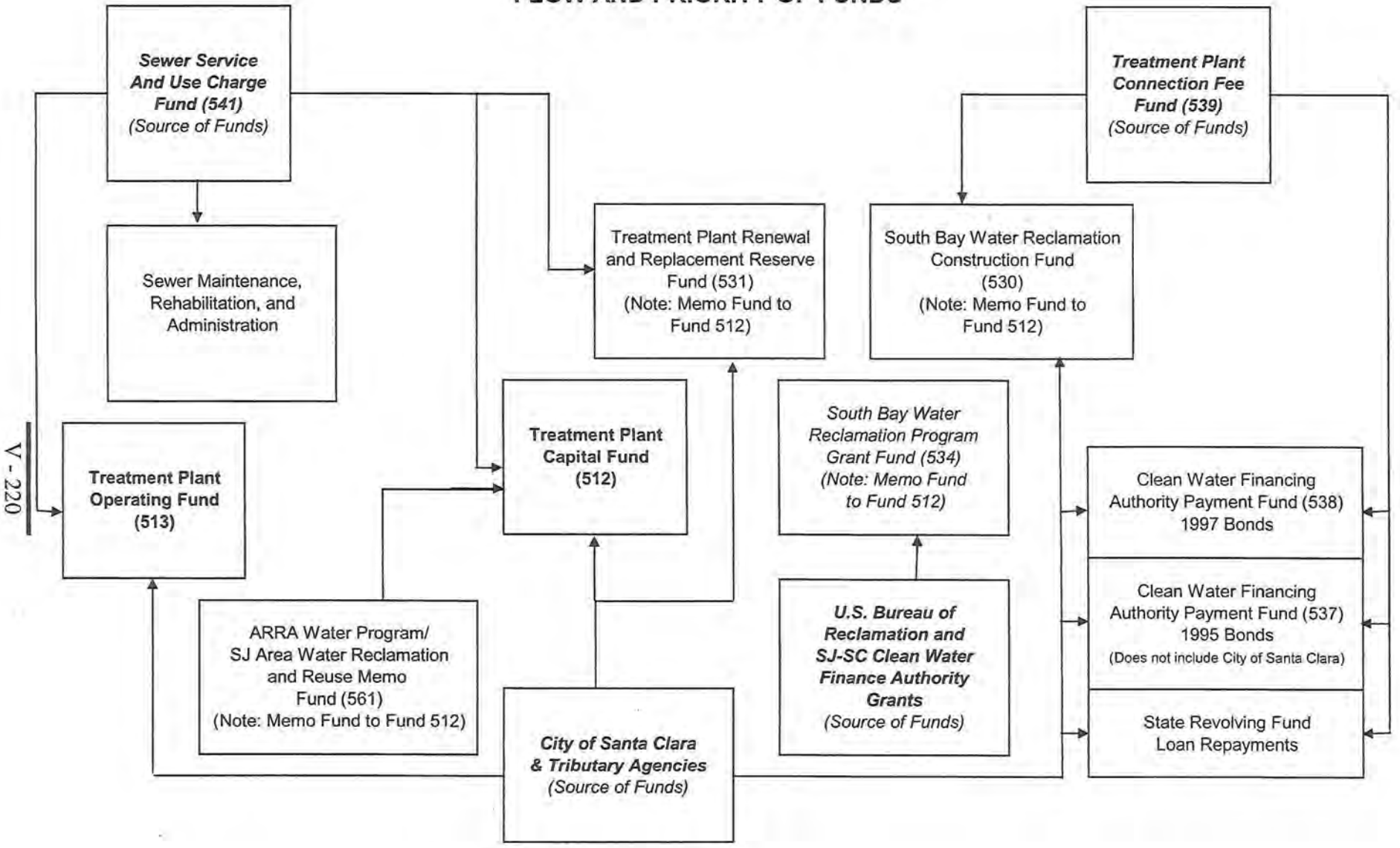
Tributary Agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the Plant.

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.