PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

Five-Year 2012-2016 Capital Improvement Program

Submitted by

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Environmental Services Department

City of San Jose

TO: Treatment Plant Advisory Committee

Chuck Reed	(Chair) Mayor, City of San Jose
Kevin Moore	Councilmember, City of Santa Clara
Pete McHugh	Vice Mayor of Milpitas
Jamie Matthews	Mayor, City of Santa Clara
Ken Yeager	Boardmember, West Valley Sanitation District
John M. Gatto	Boardmember, Cupertino Sanitary District
Ed Shikada	Deputy City Manager, City of San Jose
Kensen Chu	Councilmember, City of San Jose
Madison Nguyen	Councilmember, City of San Jose

Water Pollution Control Capital Program

2012-2016 Proposed Capital Improvement Program

Overview

Introduction

The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight South Bay cities and four sanitation districts including: San José, Santa Clara, Milpitas, Cupertino Sanitation District (Cupertino), West Valley Sanitation District (Campbell, Los Gatos, Monte Sereno and Saratoga), County Sanitation Districts 2-3 (unincorporated), and Burbank Sanitary District (unincorporated). The Plant is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José's Environmental Services Department (ESD), which is also responsible for planning, designing and constructing new wastewater treatment and water reuse facilities.

The 2012-2016 Proposed CIP provides funding of $434.5 million, of which $115.2 million is allocated in 2011-2012. Capital costs are estimated annually by ESD staff and are reviewed and recommended as a budget by the Treatment Plant Advisory Committee to the San José City Council for appropriation. The 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.

A revenue program is prepared annually by each Agency to establish its sewer service and use charge rates. Rates are adopted by ordinance, or resolution, of the governing body of each Agency. The Agencies' revenue programs, ordinances and resolutions are submitted to the City of San José, as the administering agency, for review to determine conformance with State Water Resources Control Board (SWRCB) revenue program guidelines and are then submitted by San José to the SWRCB for review and certification.

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 Water Pollution Control Capital Improvement Program (CIP) projects are currently prioritized using the following criteria established by ESD:

- Projects needed for health and safety.
- Projects needed to maintain the quality of effluent flow.
- Projects mandated by regulatory agencies.
- Projects that ensure adequate process reliability.
- Projects that enhance efficiency and effectiveness.

These criteria will be updated in the next CIP to align with the Plant Master Plan. The preferred alternative of the plan was approved by the City Council on April 19, 2011.

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 ($207.0 million) and the Sewage

Sources of Funding (Cont'd.)

Treatment Plant Connection Fee Fund ($15.5 million); contributions from the City of Santa Clara and other agencies ($109.2 million); Interest Earnings ($8.7 million); Calpine Metcalf Energy Center Facilities Repayments ($1.9 million); federal grants from the US Bureau of Reclamation ($1.5 million), and contributions from the Santa Clara Valley Water District in connection with recycled water projects ($1.0 million).

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. These fees represent the largest source of funding for this capital program. Transfers from the Sewer Service and Use Charge Fund to the Water Pollution Control Capital Improvement Program over the five years of the CIP reflect a $9.0 million (4.2%) decrease compared to the 2011-2015 Adopted CIP. The transfer is lower than that in the previous CIP because delays in projects resulted in an accumulated Fund Balance that is available to fund projects. This level of transfer assumes rate increases of 3% in 2011-2012, as well as in the following years. This level of increase is 50% lower than the 6% increase assumed in the 2011-2015 CIP.

Contributions from the City of Santa Clara and other agencies are determined according to agreements with the participating agencies, based on financing plans, anticipated Plant expenditures and the amount and characteristics of flows from each agency's connections to the Treatment Plant. These contributions reimburse the City for actual project expenditures. In this Proposed CIP, contributions from the City of Santa Clara and the other agencies total $109.2 million, which represents a $13.7 million (14%) increase compared to the 2011-2015 Adopted CIP. This increase results from the additional capital investments proposed in this CIP, driven by projects such as the East Primary Concrete Tank Repair and Stainless Steel Conversion, Headworks Enhancement, and Plant Infrastructure Improvements projects.

Program Highlights

Plant Master Plan Project

The Plant Master Plan is a three-year process initiated in 2008, which, once completed, will guide the Plant's capital improvement program and land use changes over the next 30 years. Four key conditions drive the need for the Plan: aging infrastructure, population and job growth, new or stricter regulations, and the availability of better technologies. The Master Plan will strive to balance environmental, economic, and community preferences with the technical needs of the Plant in its land use recommendations.

The preferred alternative of the Master Plan was approved by the City Council on April 19, 2011, with environmental clearance to be completed in early 2013. Preliminary cost estimates for many projects based on the the recommendations of the Master Plan were incorporated into this CIP. The Master Plan has developed technical recommendations as well as a draft recommended land use alternative. The Master Plan also addresses future regulatory requirements and flows as well as an overhaul of the entire solids treatment process. A financing strategy to cover the estimated $2.2 billion in recommended improvements will be developed in collaboration with the Plant co-owner and tributary agencies.

Overview

Program Highlights (Cont'd)

Plant Master Plant Project (Cont'd)

The current CIP aligns with the rehabilitations recommendations in the Master Plan related to the liquids process, digesters, and energy generation. It should be noted that several projects in this CIP include significant funding changes as compared to the 2011-2015 CIP, as the Master Plan was still in development at that time. The scope and cost of many projects will continue to be refined as the technologies recommended by the Master Plan are evaluated and tested.

The Master Plan recommendations for wastewater treatment processes are shaping expectations for the future physical footprint of the Plant's operational area. This footprint will enable land use planning of the Plant's 2,600 acres, which include the bufferlands, biosolids treatment area, and Pond A18. Public outreach and stakeholder involvement have been a major component of the Plant Master Plan process. Over 9,000 community members have toured the Plant since 2008, the Plant Master Plan website provides the public with up-to-date information on the Plan's progress, and a Community Advisory Group (CAG) has been formed and meets monthly for detailed discussions of the complex issues facing the Plant.

Headworks Enhancement

The Plant has two headworks (HW) facilities: HW1 and HW2. HW1 was completed in the early 1960s, and HW2 was built in 2008. At current capacities, either facility can accommodate average dry weather flows, but both facilities must be operated in parallel to accommodate peak wet weather flows. In the future, HW1 will be decommissioned and HW2 expanded to serve as the sole headworks facility. The Headworks Enhancement project will repair the HW1 to enable it to continue serving the Plant for the next ten years, and improve the functional reliability of HW2 in advance of decommissioning HW1. The 2012-2016 Proposed CIP includes $34.8 million for this project. While the total cost estimate for this project has been increased by $86.4 million, to $91.6 million, this is primarily due to the incorporation of the Headworks No. 2 Expansion project, which was presented as a separate project in the 2011-2015 CIP, into this project. The cost and scope of this project will continue to be refined as Master Plan recommendations and technologies are evaluated.

Digester Rehabilitation

The Digester Rehabilitation project, which began in 2008, will include structural rehabilitation of four digesters to address cracks in the digestion tanks, replace existing digester gas and digested sludge lines, and facilitate pilot testing of digestion processes and equipment. This CIP includes $37.7 million for the Digester Rehabilitation Project, including $24.9 million in a reserve.

The total cost estimate for this project has been decreased by $23.3 million compared to the 2011-2015 CIP, and will continue to be refined as Plant Master Plan recommendations are evaluated, and new technologies tested. The decrease in this CIP reflects scope refinement in response to a recent consultant study. The study suggested alternative technologies and pre-treatment strategies that will result in a lower volume of sludge being treated. With a lower volume of sludge expected, fewer digesters will need to be rehabilitated than was previously expected.

Program Highlights (Cont'd.)

Plant Electrical Reliability Program

The 2012-2016 Proposed CIP includes $71.5 million for the Plant Electrical Reliability Program. 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 useful life. This program consists of multi-phase construction projects to enhance the overall safety and reliability of the Plant electrical systems. Projects included in the Proposed CIP include standby generator installation, engine generator replacement, switchgear upgrades and replacement, breaker replacement, and installation of a new gas turbine for improved efficiency and reliability.

Several elements of the Plant Electrical Reliability program have already been implemented. Construction to add new switchgear and cables to create an interim ring buss distribution system is complete and construction to replace additional switchgears and motor control centers began recently. It is anticipated that this construction will be completed through 2012.

Plant Infrastructure Needs Improvements

The current five-year CIP has been adapted to the preliminary findings of the Plant Master Plan project to ensure that rehabilitation and replacement needs resulting from the Plant's aging infrastructure are covered, and that long-term expectations for liquids treatment, solids treatment, and energy generation are addressed. A $59.7 million allocation for Plant Infrastructure Improvements, as well as funding for several independent infrastructure projects, are proposed in this CIP.

One of the major preliminary findings of the Plant Master Plan is the need to move ahead with selected piloting and testing of alternative technologies. This will ensure that appropriate technologies are selected given the specific characteristics of the Plant service area's wastewater and increase the optimization level of future design. The current five-year CIP projects will facilitate piloting and testing of clarifier performance, biosolids processing options, filter underdrain system, and fine bubble membrane diffusers. Several projects included in the CIP, such as the Fine Bubble Membrane Diffuser Conversion project, the Fuel Cell project, and the replacement of the existing engine generators as part of the Plant Electrical Reliability Program, are proposed in this CIP to meet the Plant's energy and reliability goals. Specific elements of the Advanced Process Control and Automation project will improve the Plant's ability to monitor and control Plant treatment processes and increase the reliability of Plant operations.

East Primary Concrete Tank Repair and Stainless Steel Conversion

The scope of the East Primary Concrete Tank Repair and Stainless Steel Conversion, for which $18.5 million is allocated in this CIP, has increased since the 2011-2015 CIP to include seismic upgrades and odor control measures in response to recent Master Plan recommendations. Previously, this project included only concrete repair and coating of the tanks. As a result of these scope changes the cost estimate for the project has increased from $3.6 million in the 2011-2015 CIP to $18.5 million in this CIP and it is anticipated that the total project cost will be $80.1 million. The project is expected to be completed in 2021. The cost and scope of the

Program Highlights (Cont'd.)

East Primary Tank Repair and Stainless Steel Conversion (Cont'd)

project will continue to be refined as Master Plan recommendations are explored and new technologies are tested.

South Bay Action Plan

A South Bay Action Plan (SBAP) has been a requirement of the Plant's National Pollution Discharge Elimination System (NPDES) permit since 1991 and includes projects necessary to maintain average dry weather effluent flow from the Plant below the 120 million gallons per day (mgd) flow trigger, in order to protect salt marsh habitat for endangered species in the South Bay. The requirement has changed from adherence with specific elements included in the discharge permit to the submission of an annual work plan that allows for adaptive management. In June 1997, both the San Francisco Bay Regional Water Quality Control Board (Regional Board) and the San José City Council approved the Revised South Bay Action Plan (RSBAP). The RSBAP was included as a provision of the 1998 NPDES permit and included the Expanded Water Recycling; Industrial Water Recycling/Reuse,; Groundwater Inflow/Infiltration Reduction; and Environmental Enhancement pilot projects. In February 1998, Council approved a financing plan that identified $127 million in funding sources for the RSBAP, primarily through State Revolving Fund loans from the State Water Resources Control Board(SWRCB), and Treatment Plant Capital Fund reserves. Included in the $127 million was $100 million for water recycling projects. Projects. The last of this funding is programmed in this CIP in the Revised South Bay Action Plan – SBWR Extension Project.

On April 8, 2009 the Regional Board approved a new NPDES permit for the Plant and continued the requirement for a South Bay Action Plan to comply with the original 1991 Regional Board Resolution. The Regional Board SBAP requirement states that the Discharger will continue to implement its water conservation, industrial recycling and reuse, and recycling programs.

The South Bay Water Recycling System was authorized by the City Council in 1993 as a project to divert up to 15 mgd of treated effluent from the bay during the summer by providing nonpotable recycled water to customers in Milpitas, Santa Clara and San José. The Santa Clara Valley Water District (SCVWD) is expected to complete the Advanced Water Treatment facility in 2012, marking a significant milestone in the evolution of the System. In addition, a continued collaborative effort is underway with the SCVWD for future expansion, operation and maintenance of the system. This proposed CIP includes $2.9 million of funding for the Revised South Bay Action Plan – SBWR Extension project, $14.0 million for a South Bay Water Recycling Master Plan, and $7.0 million for other SBWR projects.

Other Projects

The 2012-2016 Proposed CIP includes other projects that are required to meet regulatory mandates, ensure process reliability, provide a safe work environment, or create process efficiencies or cost savings. These projects include the Secondary and Nitrification Clarifier Rehabilitation ($9.6 million), and the Fine Bubble Membrane Diffuser Conversion ($3.2 million).

Program Highlights (Cont'd.)

Reserve for Equipment Replacement

As in prior CIPs, the 2012-2016 Proposed CIP includes a minimum $5.0 million reserve for equipment replacement. This reserve minimum was established to satisfy three contractual requirements:

The State Water Resources Control Board's (SWRCB) Fund Loan Agreement policy requires annual budgets to include funds for the replacement of major equipment that maintains the capacity and performance of the treatment plant over its useful life.

The Clean Water Financing Authority (CWFA) Bond Covenants require that a reserve be maintained at a minimum level of $5.0 million to help pay the costs of extraordinary repairs and for renewal and replacement of the treatment plant when insurance and other funds budgeted for such purposes are insufficient to meet the need.

The Master Agreements for Wastewater Treatment between City of San José, City of Santa Clara, and Tributary Agencies established a replacement fund to deposit annual contributions for the replacement of major treatment plant equipment. The Master Agreements also require that each agency pay its proportionate share of the annual replacement contribution.

Other Reserves

Several other reserves have been established or are included in this program. A reserve of $20.0 million for the Biosolids Program will be used for the disposal of legacy biosolids on Plant Lands. Options for the disposal of these biosolids are currently under evaluation.

A Reserve for Odor Control Projects ($10.0 million) has been established for several projects in this program, which will incorporate odor control components. The technologies to be used for odor control are still under evaluation, and the scope of the projects is still being refined. The CIP also includes a reserve of $10.0 million for contingencies related to electrical systems as well as for activities related to the Electrical Reliability Improvements project. Finally, a Reserve for Digester Rehabilitation ($24.9 million) sets aside funding for this project, and will be allocated to the project beginning in 2012-2013.

Major Changes from the 2011-2015 Adopted CIP

Major changes from the 2011-2015 Adopted CIP include the following:

- A decrease of $23.3 million for Digester Rehabilitation.
- A decrease of $5.9 million for Advanced Process Control and Automation.
- A decrease of $1.5 million for Fine Bubble Membrane Diffuser Conversion.
- An increase of $86.4 million for Headworks Enhancement.
- An increase of $80.1 million for East Primary Concrete Tank Repair and Stainless Steel Conversion.
- A new SBWR Master Plan project ($14.0 million).

Major Changes from the 2011-2015 Adopted CIP (Cont'd)

- An increase of $13.2 million for the ongoing Plant Infrastructure Improvements allocation.

The proposed increases and decreases to the various project line items in this CIP are reflective of updated recommendations and cost estimates contained in the draft Plant Master Plan. The changes are also reflective of the need to extend the construction timeline for a number of projects beyond the current five-year CIP to allow for the completion of special studies, pilot testing of new technologies, and procurement of technical services and staffing.

Operating Budget Impact

None of the proposed projects are projected to negatively impact operating costs. On the contrary, several projects proposed in this CIP are aimed at reducing energy and operations costs. As projects are completed, and when energy usage data are available, savings will be evaluated for future reductions to the Environmental Services Department's utilities allocation.

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Source of Funds

SOURCE OF FUNDS	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund							
Beginning Fund Balance	84,115,423	64,881,744	1,133,744	6,566,744	6,529,744	7,517,744	64,881,744 *
Revenue from Other Agencies:							
Federal Government							
- Recovery Act - Federal Revenue	3,000,000	1,000,000					1,000,000
- U.S. Bureau of Reclamation Grant	1,011,000	500,000					500,000
Water Pollution Control Plant User Agencies							
- 2005 Bond Debt Repayment	1,228,000	1,224,000	1,222,000	1,223,000	1,216,000	1,221,000	6,106,000
- Equipment Replacement	587,000	587,000	587,000	587,000	587,000	587,000	2,935,000
- SRF 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	10,371,000	13,119,000	19,983,000	20,868,000	19,789,000	19,527,000	93,286,000
Contributions, Loans and Transfers from:							
Special Funds							
- Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,090,000	3,090,000	3,090,000	3,090,000	3,090,000	3,090,000	15,450,000
- Transfer from the Sewer Service and Use Charge Fund (541)	26,826,000	27,808,000	38,801,000	46,806,000	44,775,000	48,798,000	206,988,000
Interest Income	1,316,000	261,000	780,000	1,609,000	2,472,000	3,546,000	8,668,000
Miscellaneous Revenue							
- Calpine Metcalf Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
- SCVWD - AWT Contribution	1,000,000	1,000,000					1,000,000
Reserve for Encumbrances Beginning Fund Balance	30,139,321						
Reserves							
- Digester Rehabilitation			24,881,000				24,881,000

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Source of Funds

SOURCE OF FUNDS (CONT'D.)	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund							
Total San José-Santa Clara Treatment Plant Capital Fund	**164,446,744**	**115,233,744**	**92,240,744**	**82,512,744**	**80,221,744**	**86,049,744**	**434,510,744** *
TOTAL SOURCE OF FUNDS	**164,446,744**	**115,233,744**	**92,240,744**	**82,512,744**	**80,221,744**	**86,049,744**	**434,510,744** *

* The 2012-2013 through 2015-2016 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Use of Funds

USE OF FUNDS	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
Construction Projects							
Public Art							
1. Public Art	785,000	388,000	593,000	619,000	587,000	579,000	2,766,000
Total Public Art	**785,000**	**388,000**	**593,000**	**619,000**	**587,000**	**579,000**	**2,766,000**
Water Pollution Control Managed Projects							
Advanced Process Control and Automation	1,940,000		1,140,000	250,000	250,000	250,000	1,890,000
Alternative Disinfection	1,189,000						
Dissolved Air Flotation Pressure Retention Tank and Valves	20,000						
Environmental Services Building Repair	21,000						
Fine Bubble Membrane Diffuser Conversion	750,000		354,000	354,000	708,000	1,770,000	3,186,000
Fuel Cell	1,326,000	74,000					74,000
Inactive Lagoons Bio-Solids Removal	875,000		240,000	3,000,000	3,000,000	3,000,000	9,240,000
Land Management and Improvements	250,000						
M5, Ring Buss, and Cable Replacement	858,000						
SBWR Regional Connector			2,000,000				2,000,000
SBWR Reservoir Facility	5,475,000						
WPCP Reliability Improvements	21,000						
Warehousing Facility Additions	300,000						
2. Digester Rehabilitation	3,119,000	12,820,000	23,205,000	980,000	696,000		37,701,000
3. East Primary Concrete Tank Repair and Stainless Steel Conversion	1,684,000	83,000	1,704,000	2,000,000	5,000,000	9,760,000	18,547,000
4. Headworks Enhancement	4,316,000	931,000	6,771,000	1,385,000	1,090,000	24,661,000	34,838,000
5. Iron Salt Feed Station	340,000	2,000,000					2,000,000

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Use of Funds

USE OF FUNDS (CONT'D.)	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
Construction Projects							
Water Pollution Control Managed Projects							
6. Plant Electrical Reliability	15,986,000	1,814,000	13,036,000	27,620,000	29,070,000		71,540,000
7. SBWR Backup Water Supply		3,000,000					3,000,000
8. SBWR Customer Connection Program		1,000,000	1,000,000				2,000,000
9. SBWR Master Plan		2,000,000	3,000,000	3,000,000	3,000,000	3,000,000	14,000,000
10. Secondary and Nitrification Clarifier Rehabilitation	3,940,000	360,000	1,106,000	931,000	6,939,000	289,000	9,625,000
Total Water Pollution Control Managed Projects	**42,410,000**	**24,082,000**	**53,556,000**	**39,520,000**	**49,753,000**	**42,730,000**	**209,641,000**
Watershed Protection Managed Projects							
ESD MIS Improvements	169,000						
Lab Information Management System	61,000						
Recovery Act - South Bay Water Recycling Phase 1C	4,000,000						
11. Dissolved Air Flotation Dissolution Improvements	298,000	1,158,000	23,000				1,181,000
12. Filter Improvements	200,000	122,000	442,000	1,684,000	1,684,000	244,000	4,176,000
13. Revised South Bay Action Plan - SBWR Extension	18,150,000	1,389,000	389,000	389,000	389,000	389,000	2,945,000
Total Watershed Protection Managed Projects	**22,878,000**	**2,669,000**	**854,000**	**2,073,000**	**2,073,000**	**633,000**	**8,302,000**
Recurring Projects							
14. Equipment Replacement	4,822,000	1,746,000	3,783,000	1,425,000	1,425,000	1,425,000	9,804,000
15. Plant Infrastructure Improvements	12,126,000	13,102,000	4,868,000	20,316,000	6,870,000	14,551,000	59,707,000
16. Unanticipated/Critical Repairs	263,000	250,000	250,000	250,000	250,000	250,000	1,250,000

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Use of Funds

USE OF FUNDS (CONT'D.)	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
Construction Projects							
Recurring Projects							
Total Recurring Projects	**17,211,000**	**15,098,000**	**8,901,000**	**21,991,000**	**8,545,000**	**16,226,000**	**70,761,000**
Total Construction Projects	**83,284,000**	**42,237,000**	**63,904,000**	**64,203,000**	**60,958,000**	**60,168,000**	**291,470,000**
Non-Construction							
General Non-Construction							
Plant Master Plan	4,419,000						
Transfer to Clean Water Financing Authority Debt Service Payment Fund	6,978,000	6,956,000	6,947,000	6,953,000	6,915,000	6,943,000	34,714,000
17. Capital Program and Public Works Department Support Service Costs	397,000	300,000	303,000	306,000	309,000	312,000	1,530,000
18. Payment for Clean Water Financing Authority Trustee	5,000	5,000	5,000	5,000	5,000	5,000	25,000
19. 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	**16,263,000**	**11,725,000**	**11,719,000**	**11,728,000**	**11,693,000**	**11,724,000**	**58,589,000**
Contributions, Loans and Transfers to General Fund							
Transfer to the General Fund: Human Resources/Payroll System Upgrade		10,000					10,000
Total Contributions, Loans and Transfers to General Fund		**10,000**					**10,000**
Contributions, Loans and Transfers to Special Funds							
Transfer to the City Hall Debt Service Fund	18,000	47,000	51,000	52,000	53,000	54,000	257,000
Total Contributions, Loans and Transfers to Special Funds	**18,000**	**47,000**	**51,000**	**52,000**	**53,000**	**54,000**	**257,000**

Water Pollution Control

2012-2016 Adopted Capital Improvement Program

Use of Funds

USE OF FUNDS (CONT'D.)	Estimated 2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	5-Year Total
Non-Construction							
Reserves							
Reserve for Biosolids Program		20,000,000					20,000,000
Reserve for Digester Rehabilitation		24,881,000					24,881,000
Reserve for Electrical Reliability Improvements			10,000,000				10,000,000
Reserve for Equipment Replacement		5,000,000					5,000,000
Reserve for Odor Control Projects		10,000,000					10,000,000
Reserve for Rate Studies		200,000					200,000
Total Reserves		**60,081,000**	**10,000,000**				**70,081,000**
Total Non-Construction	**16,281,000**	**71,863,000**	**21,770,000**	**11,780,000**	**11,746,000**	**11,778,000**	**128,937,000**
Ending Fund Balance	64,881,744	1,133,744	6,566,744	6,529,744	7,517,744	14,103,744	14,103,744*
TOTAL USE OF FUNDS	**164,446,744**	**115,233,744**	**92,240,744**	**82,512,744**	**80,221,744**	**86,049,744**	**434,510,744***

* The 2011-2012 through 2014-2015 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

1. Public Art

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

Description: This allocation funds the construction and administration of public art in the Water Pollution Control Capital Program. In compliance with the Council adoption of the revised Public Art Master Plan on March 13, 2007, one percent of all construction project funding is required to be allocated to public art, excluding funding for seismic and ADA retrofits, maintenance and operations, non-construction projects (such as studies), or affordable housing. Projects where public art allocations were previously programmed or appropriated are not subject to the revisions of the Public Art Master Plan. Expenditures in this allocation will be subject to the legal revenue restrictions for the use of this funding on public art.

Justification: This allocation is required to comply with the revisions to the Public Art Master Plan adopted by the City Council on March 13, 2007.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Public Art		785	785	388	593	619	587	579	2,766		
TOTAL		**785**	**785**	**388**	**593**	**619**	**587**	**579**	**2,766**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		785	785	388	593	619	587	579	2,766		
TOTAL		**785**	**785**	**388**	**593**	**619**	**587**	**579**	**2,766**		

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	**Redevelopment Area:**	N/A
Initial Project Budget:		**SNI Area:**	N/A
Appn. #:	5957	**USGBC LEED:**	N/A

2. Digester Rehabilitation

CSA:	Environmental and Utility Services	**Initial Start Date:**	3rd Qtr. 2006
CSA Outcome:	Healthy Streams, Rivers, Marsh and Bay	**Revised Start Date:**	3rd Qtr. 2008
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2008
Council District:	4	**Revised Completion Date:**	2nd Qtr. 2015
Location:	Water Pollution Control Plant		

Description: This project includes structural rehabilitation of four digesters to address cracks in the existing concrete digestion tanks and mechanical rehabilitation and/or replacement to restore and enhance digester performance; replaces existing digester gas lines to ensure code compliance and safety; includes rehabilitation and modification of six dissolved air flotation units to improve performance and odor control; and would facilitate pilot testing of digestion processes and various equipment to allow the City to make cost effective selections regarding future digestion needs.

Justification: Given current processes, 11 of the 16 digesters at the WPCP must be operational for effective digestion of scum and grease. Currently, five of the digesters are non-operational, leaving only the minimum number in operation. The remaining digesters are also at risk of failure. Rehabilitating four of the digesters will ensure that scum and grease digestion operations can continue uninterrupted. It is expected that in future years, after piloting of new digestion processes and equipment are complete, additional funding will be required to rehabilitate additional aging digesters.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Development	56										56
Design		3,119	3,119	3,057					3,057		6,176
Construction				9,763	23,205	980	696		34,644		34,644
TOTAL	**56**	**3,119**	**3,119**	**12,820**	**23,205**	**980**	**696**		**37,701**		**40,876**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	56	3,119	3,119	12,820	23,205	980	696		37,701		40,876
TOTAL	**56**	**3,119**	**3,119**	**12,820**	**23,205**	**980**	**696**		**37,701**		**40,876**

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 increased project scope.
2011-2015 CIP - decrease of $34.0 million due to decrease in project scope.
2012-2016 CIP - decrease of $23.2 million due to changes in project design.

Notes:

This project replaced the Scum Digestion project.

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

3. East Primary Concrete Tank Repair and Stainless Steel Conversion

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 would also include modifications for seismic stability to accommodate odor control covers.

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

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design		1,684	1,684	83	1,704	2,000			3,787		5,471
Construction							5,000	9,760	14,760	63,520	78,280
TOTAL		**1,684**	**1,684**	**83**	**1,704**	**2,000**	**5,000**	**9,760**	**18,547**	**63,520**	**83,751**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		1,684	1,684	83	1,704	2,000	5,000	9,760	18,547	63,520	83,751
TOTAL		**1,684**	**1,684**	**83**	**1,704**	**2,000**	**5,000**	**9,760**	**18,547**	**63,520**	**83,751**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

2012-2016 CIP - Increase of $80.1 million due to increase of scope to incorporate new Master Plan recommendations for seismic upgrades and odor control measures. The 2011-2015 CIP did not include a cost estimate for this project beyond 2012-2013 because the Master Plan was not yet completed during the development of the 2011-2015 CIP.

Notes:

The East Primary Concrete Tank Repair and Stainless Steel Conversion became a stand alone project in 2010-2011. Prior to this, funding for these activities was included in the Plant Infrastructure Improvements allocation. The Initial Start Date above refers to the date when these activities were initiated as part of the Plant Infrastructure Improvements allocation.

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

4. Headworks 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. 2019
Location:	Water Pollution Control Plant		

Description: The new headworks were designed to operate in parallel with the old headworks to handle supplementary flows during wet weather. This project includes modifications to the Plant's headworks to allow the new headworks to handle all flows to the Plant when the old headworks are out of service. Modifications include adding gates and piping connections between existing junction structures to reroute flows. Rehabilitation of bar screens, discharge valves, channel gate valves, concrete structures, and process piping is also included in this project.

Justification: This project allows for the old headworks, which was built in the mid 1950s and early 1960s, to be shutdown for maintenance and rehabilitation.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design	165	1,465	1,465	931	578	500	500		2,509		4,139
Construction		2,851	2,851		6,193	885	590	24,661	32,329	52,286	87,466
TOTAL	**165**	**4,316**	**4,316**	**931**	**6,771**	**1,385**	**1,090**	**24,661**	**34,838**	**52,286**	**91,605**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	165	4,316	4,316	931	6,771	1,385	1,090	24,661	34,838	52,286	91,605
TOTAL	**165**	**4,316**	**4,316**	**931**	**6,771**	**1,385**	**1,090**	**24,661**	**34,838**	**52,286**	**91,605**

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. The scope of the combined project has also changed significantly since the prior CIP in response to new Master Plan recommendations, and will continue to be refined.

Notes:

FY Initiated:	2009-2010	**Redevelopment Area:**	N/A
Initial Project Budget:	$4,000,000	**SNI Area:**	N/A
Appn. #:	7073	**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:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2012
Council District:	4	**Revised Completion Date:**	
Location:	Water Pollution Control Plant		

Description: This project will include a chemical storage tank, a concrete containment structure as well as pumps, piping and instrumentation to dose and 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	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design		340	340								340
Construction				2,000					2,000		2,000
TOTAL		**340**	**340**	**2,000**					**2,000**		**2,340**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		340	340	2,000					2,000		2,340
TOTAL		**340**	**340**	**2,000**					**2,000**		**2,340**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

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

6. 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. 2015
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	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design	3,555			1,344	1,336	720			3,400		6,955
Construction		15,986	15,986	470	11,700	26,900	29,070		68,140		84,126
TOTAL	**3,555**	**15,986**	**15,986**	**1,814**	**13,036**	**27,620**	**29,070**		**71,540**		**91,081**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	3,555	15,986	15,986	1,814	13,036	27,620	29,070		71,540		91,081
TOTAL	**3,555**	**15,986**	**15,986**	**1,814**	**13,036**	**27,620**	**29,070**		**71,540**		**91,081**

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.

Notes:

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

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

7. SBWR 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:**	
Location:	City-wide		

Description: This allocation funds the buildout of backup water supply facilities to provide an alternate water source for critical customers when South Bay Water Recycling operations are interrupted for any reason.

Justification: Without backup water supplies, a failure of the Advanced Water Treatment Facility, which is scheduled to become operational in 2012, would result in wide variations in water quality to irrigation and industrial customers and (in certain circumstances) interruption of water supply altogether to critical facilities. Poor water quality could result in the loss of recycled water customers. A backup water supply is a prerequisite for supplying recycled water to the Mineta-San Jose International Airport.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design				3,000					3,000		3,000
TOTAL				**3,000**					**3,000**		**3,000**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund				3,000					3,000		3,000
TOTAL				**3,000**					**3,000**		**3,000**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
N/A

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	**Redevelopment Area:**	N/A
Initial Project Budget:	$3,000,000	**SNI Area:**	N/A
Appn. #:		**USGBC LEED:**	N/A

8. SBWR Customer Connection Program

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2012
CSA Outcome:	Healthy Streams, Rivers, Marsh and Bay	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	4th Qtr. 2012
Council District:	City-wide	**Revised Completion Date:**	
Location:	City-wide		

Description: The project provides grants to prospective recycled water customers to fund onsite retrofits. Retrofits are needed to connect existing recycled water users to the South Bay Water Recycling system.

Justification: Connection of industrial customers to recycled water frequently requires significant investment by the industrial facilities. In general these costs have not been budgeted and present a significant barrier to the use of recycled water. By providing grants to prospective customers, SBWR can increase long-term recycled water revenues. It is anticipated that the amount of grant funding available through the Customer Connection Program will be proportional to the projected amount of recycled water demand such that the grant can be repaid through gross revenues over the course of approximately ten years or less.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Grant				1,000	1,000				2,000		2,000
TOTAL				**1,000**	**1,000**				**2,000**		**2,000**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund				1,000	1,000				2,000		2,000
TOTAL				**1,000**	**1,000**				**2,000**		**2,000**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:
None

Notes:

FY Initiated:	2011-2012	**Redevelopment Area:**	N/A
Initial Project Budget:	$2,000,000	**SNI Area:**	N/A
Appn. #:	TEMP	**USGBC LEED:**	N/A

9. SBWR Master Plan

CSA:	Environmental and Utility Services	**Initial Start Date:**	1st Qtr. 2012
CSA Outcome:	Healthy Streams, Rivers, Marsh and Bay	**Revised Start Date:**	
Department:	Environmental Services	**Initial Completion Date:**	2nd Qtr. 2016
Council District:	City-wide	**Revised Completion Date:**	
Location:	City-wide		

Description: The SBWR Master Plan will assess the ability of existing infrastructure to meet current and future recycled water demands and will recommend capital improvements to enhance system reliability, maintain water quality and increase recycled water use. Subsequent fiscal years (2012-2013 through 2015-2016) include funding for implementation of capital improvement projects recommended by the SBWR Master Plan, with funding in the second year (2012-2013) reserved specifically for projects to improve hydraulic reliability, including modifications to existing pump stations, additional storage to reduce system peaking and updated system controls.

Justification: The last SBWR Master Plan was completed in 2001. By updating and revising the SBWR Master Plan, a plan to upgrade recycled water pumping and distribution infrastructure to meet current and future demands will be included. The updated SBWR Master Plan will also address financial and institutional aspects of the water recycling program, including the development of a financing plan and modifications to the Joint Powers Agreement that may be appropriate for long-term development of SBWR.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design					3,000	3,000	3,000	3,000	12,000		12,000
Master Plan/Study				2,000					2,000		2,000
TOTAL				**2,000**	**3,000**	**3,000**	**3,000**	**3,000**	**14,000**		**14,000**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund				2,000	3,000	3,000	3,000	3,000	14,000		14,000
TOTAL				**2,000**	**3,000**	**3,000**	**3,000**	**3,000**	**14,000**		**14,000**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes In Project Cost:

Master Plan projects are intended to reduce overall operating costs.

Notes:

FY Initiated:	2011-2012	**Redevelopment Area:**	N/A
Initial Project Budget:	$14,000,000	**SNI Area:**	N/A
Appn. #:	TEMP	**USGBC LEED:**	N/A

10. Secondary and Nitrification Clarifier Rehabilitation

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

Description: This project includes systematic rehabilitation of existing secondary and nitrification clarifiers, including coating of concrete and rehabilitation of clarifier mechanisms. The clarifiers are large concrete tanks that serve to treat the wastewater by allowing for solids to settle out to the bottom of the tanks. The treated wastewater flows to the next treatment phase and the solids are removed from the bottom of the clarifiers for further treatment.

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

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Development											
Design											
Construction		3,940	3,940	360	1,106	931	6,939	289	9,625		
TOTAL		**3,940**	**3,940**	**360**	**1,106**	**931**	**6,939**	**289**	**9,625**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		3,940	3,940	360	1,106	931	6,939	289	9,625		
TOTAL		**3,940**	**3,940**	**360**	**1,106**	**931**	**6,939**	**289**	**9,625**		

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. Condition assessment studies are currently underway and will serve as the basis for developing a pilot project to test various equipment and configurations on one clarifier before undertaking extensive rehabilitation on all 26 secondary clarifiers and 16 nitrification clarifiers. In the 2012-2016 CIP, the cost of the project was increased by $1.2 million due to refinements in project scope and construction cost estimates. These costs will be further refined in the future.

FY Initiated:	Ongoing	**Redevelopment Area:**	N/A
Initial Project Budget:		**SNI Area:**	N/A
Appn. #:	7074	**USGBC LEED:**	N/A

11. Dissolved Air Flotation Dissolution Improvements

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:**	3rd Qtr. 2012
Location:	Water Pollution Control Plant		

Description: This project will replace existing pressure flow discharge valves and pipe manifold at the Dissolved Air Flotation Facility. This project will also include evaluation and testing of an alternative technology to the existing pressure retention tanks.

Justification: This project will improve reliability, address safety issues, and maintain the integrity of existing infrastructure. This project will also evaluate less costly alternatives to replacing the existing pressure retention tanks.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design		548	298								298
Construction				1,158	23				1,181		1,181
Post Construction											
TOTAL		**548**	**298**	**1,158**	**23**				**1,181**		**1,479**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		548	298	1,158	23				1,181		1,479
TOTAL		**548**	**298**	**1,158**	**23**				**1,181**		**1,479**

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

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

12. Filter Improvements

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

Description: This project includes the replacement of the existing filter underdrain system with a new type of underdrain technology, and the existing dual-media with a single media type (monomedia). Initially, one of the 16 filter bays would be operated as a full-scale demonstration project. This project will allow the City to evaluate whether it is more economical to upgrade the existing filters or install a new technology.

Justification: The existing filters at the Water Pollution Control Plant were constructed in the 1970s. Due to structural and mechanical deterioration at the filter facility, as well as outdated electrical and instrumentation equipment, a significant investment will be required at the filter facility over the next 10 years to ensure the long-term reliability of the treatment process.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Design		200	200								
Construction				122	442	1,684	1,684	244	4,176		
TOTAL		**200**	**200**	**122**	**442**	**1,684**	**1,684**	**244**	**4,176**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		200	200	122	442	1,684	1,684	244	4,176		
TOTAL		**200**	**200**	**122**	**442**	**1,684**	**1,684**	**244**	**4,176**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project. This project became a stand alone project in 2010-2011. Previously, it was part of the Plant Infrastructure Improvements project.

FY Initiated:	Ongoing	**Redevelopment Area:**	N/A
Initial Project Budget:		**SNI Area:**	N/A
Appn. #:	7227	**USGBC LEED:**	N/A

13. Revised South Bay Action Plan - 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: The National Pollutant Discharge Elimination System (NPDES) permit requires continued development of the South Bay Water Recycling (SBWR) system to increase use of recycled water and further reduce Plant discharge to the bay. This allocation funds recycled water projects that are not yet identified. Included annually in this appropriation is $389,000, which represents recycled water pipeline funding from Calpine for their share of the pipeline to the Metcalf Energy Center, and will be used to fund future recycled water projects.

Justification: The Revised South Bay Action Plan, adopted by the City Council in June 2001, provides for an integrated, cost-effective combination of water conservation, industrial reuse and water recycling projects. The SBWR Extension project includes construction of extensions to the existing recycled water distribution system that will provide additional capacity and ensure diversification of a beneficial resource while reducing flow to the Bay.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Development											
Design											
Construction		19,161	18,150	1,389	389	389	389	389	2,945		
TOTAL		**19,161**	**18,150**	**1,389**	**389**	**389**	**389**	**389**	**2,945**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		19,161	18,150	1,389	389	389	389	389	2,945		
TOTAL		**19,161**	**18,150**	**1,389**	**389**	**389**	**389**	**389**	**2,945**		

ANNUAL OPERATING BUDGET IMPACT (000'S)

TBD	
TOTAL	

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. In the 2012-2016 CIP, this allocation decreased by $8.6 million due to the completion of several major phases of construction in 2010-2011. Annual Operating Budget impacts are to be determined, and will be evaluated on an ongoing basis. 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 South Bay Water Recycling and the Advanced Water Treatment Facility beginning in 2012. Upon review of these operating costs, one party will pay to the other the amount required to equalize the amounts paid by each towards the total net operating cost, however, the City's share of the costs will never exceed $2 million.

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

14. 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 the 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	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Equipment		4,822	4,822	1,746	3,783	1,425	1,425	1,425	9,804		
TOTAL		**4,822**	**4,822**	**1,746**	**3,783**	**1,425**	**1,425**	**1,425**	**9,804**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		4,822	4,822	1,746	3,783	1,425	1,425	1,425	9,804		
TOTAL		**4,822**	**4,822**	**1,746**	**3,783**	**1,425**	**1,425**	**1,425**	**9,804**		

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. In the 2012-2016 CIP, this allocation was decreased by $3.5 million due to refinements to project scope and cost estimates. These costs will be further refined in the future.

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

15. Plant Infrastructure Improvements

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

Description: This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure. Examples of the ongoing replacement and rehabilitation work include roof and handrail replacement; concrete repairs; street resurfacing; yard piping condition assessments; and rehabilitation of process facilities, instrumentation, and electrical generation and distribution control systems. In addition to this ongoing work, special projects related to infrastructure may be funded from this appropriation. Examples include pilot projects and connection of various new process areas to existing plant infrastructure. With the completion of the Master Plan Environmental Impact Report (EIR) in early 2013, the number of special projects funded from this appropriation is expected to increase substantially. Examples of these projects include aeration header connection, field verification of filter technology, and biosolids processing improvements. It should be noted that due to the ongoing evaluation of Master Plan recommendations and analysis of available technologies, costs and schedules for a number of projects in this appropriation are expected to be refined substantially in the coming years.

Justification: 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 for intended uses.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Construction		12,126	12,126	13,102	4,868	20,316	6,870	14,551	59,707		
TOTAL		**12,126**	**12,126**	**13,102**	**4,868**	**20,316**	**6,870**	**14,551**	**59,707**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		12,126	12,126	13,102	4,868	20,316	6,870	14,551	59,707		
TOTAL		**12,126**	**12,126**	**13,102**	**4,868**	**20,316**	**6,870**	**14,551**	**59,707**		

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. In the 2012-2016 CIP, this allocation was increased by $13.2 million due to refinements to project scope and construction cost estimates. These costs will be further refined in the future.

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

16. Unanticipated/Critical Repairs

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 funding for any unanticipated and/or critical repairs.

Justification: It is necessary to have funds available to facilitate a rapid response in the event that critical repairs are required to plant infrastructure, or an unforeseen situation arises during project construction.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Construction		263	263	250	250	250	250	250	1,250		
TOTAL		**263**	**263**	**250**	**250**	**250**	**250**	**250**	**1,250**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		263	263	250	250	250	250	250	1,250		
TOTAL		**263**	**263**	**250**	**250**	**250**	**250**	**250**	**1,250**		

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	**Redevelopment Area:**	N/A
Initial Project Budget:		**SNI Area:**	N/A
Appn. #:	5691	**USGBC LEED:**	N/A

17. Capital Program and Public Works Department Support Service Costs

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Public Works
Description: This allocation funds capital program and Public Works Department support service costs. Capital program support service costs include the cost of the Capital Project Management System, the bid and award process, labor compliance review, performance measurement reporting, and updates of policies and specifications. Public Works Department support service costs include items such as management, staff support, fiscal services, technical support, and procurement services.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Program Management		397	397	300	303	306	309	312	1,530		
TOTAL		**397**	**397**	**300**	**303**	**306**	**309**	**312**	**1,530**		

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund		397	397	300	303	306	309	312	1,530		
TOTAL		**397**	**397**	**300**	**303**	**306**	**309**	**312**	**1,530**		

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

Appn. #: 6000

18. Payment for Clean Water Financing Authority Trustee

CSA: Environmental and Utility Services
CSA Outcome: Reliable Utility Infrastructure
Department: Environmental Services
Description: This allocation provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issues, including necessary audits, transfers, registration, investment, and disbursement fees.

EXPENDITURE SCHEDULE (000'S)

Cost Elements	Prior Years	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Program Management		5	5	5	5	5	5	5	25		
TOTAL		**5**	**5**	**5**	**5**	**5**	**5**	**5**	**25**		

FUNDING SOURCE SCHEDULE (000'S)

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

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

Appn. #: 6584

19. 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	2010-11 Appn.	2010-11 Estimate	2011-12	2012-13	2013-14	2014-15	2015-16	5-Year Total	Beyond 5-Year	Project Total
Debt Service	52,502	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	8,994	88,280
TOTAL	**52,502**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**22,320**	**8,994**	**88,280**

FUNDING SOURCE SCHEDULE (000'S)

San José-Santa Clara Treatment Plant Capital Fund	52,502	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	8,994	88,280
TOTAL	**52,502**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**4,464**	**22,320**	**8,994**	**88,280**

Appn. #: 6590

Summary of Projects that Start after 2011-2012

Project Name:	**Advanced Process Control and Automation**	**Initial Start Date:**	3rd Qtr. 2010
		Revised Start Date:	
5-Year CIP Budget:	$1,890,000	**Initial End Date:**	2nd Qtr. 2015
Total Budget:	$5,080,000	**Revised End Date:**	2nd Qtr. 2020
Council District:	4		
USGBC LEED:	N/A		

Description: This project will improve monitoring and control of treatment processes, equipment, and power usage at the Plant. The project includes development of real-time simulation software for optimal energy and plant operating scenarios, and a Meter Validation and Replacement Program to improve the accuracy and reliability of existing meters at the Plant.

Project Name:	**Fine Bubble Membrane Diffuser Conversion**	**Initial Start Date:**	3rd Qtr. 2010
		Revised Start Date:	
5-Year CIP Budget:	$3,186,000	**Initial End Date:**	2nd Qtr. 2022
Total Budget:	$30,840,000	**Revised End Date:**	
Council District:	4		
USGBC LEED:	N/A		

Description: This project will convert half of the aeration basins at the WPCP to fine bubble diffusion. The project will begin by piloting the latest fine bubble diffuser technology, and begin converting existing diffusers in 2014-2015.

Project Name:	**Inactive Lagoons Bio-Solids Removal**	**Initial Start Date:**	3rd Qtr. 2002
5-Year CIP Budget:	$9,240,000	**Revised Start Date:**	3rd Qtr. 2010
Total Budget:	$25,115,000	**Initial End Date:**	2nd Qtr. 2008
Council District:	4	**Revised End Date:**	2nd Qtr. 2022
USGBC LEED:	N/A		

Description: The Residual Sludge Management facility has inactive lagoons containing about 320,000 dry tons of toxic bio-solid stockpiles, accumulated between 1960 and 1967, before vigorous and effective source control and pretreatment programs were implemented. These stockpiles contain contaminant levels that could require disposal at a landfill at a significant cost. This project will further study and characterize the materials, assess disposal options based on that study, and dispose of the bio-solids. This project was put on hold a number of times, most recently in 2007 when it was deferred so that possible solutions could be explored in the context of the Plant Master Plan. Based on early Master Planning recommendations, this project is being re-activated to dispose of these bio-solids.

Summary of Projects that Start after 2011-2012

Project Name:	**SBWR Regional Connector**	**Initial Start Date:**	1st Qtr. 2013
5-Year CIP Budget:	$2,000,000	**Revised Start Date:**	
Total Budget:	$2,000,000	**Initial End Date:**	4th Qtr. 2014
Council District:		**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project includes the design and construction of pipeline extensions to provide recycled water to jurisdictions outside the San José/Santa Clara Water Pollution Control Plant (WPCP) service area.

Summary of Projects with Close-out Costs Only in 2011-2012

Project Name:	**Fuel Cell**	**Initial Start Date:**	3rd Qtr 2010
5-Year CIP Budget:	$74,000	**Revised Start Date:**	
Total Budget:	$1,400,000	**Initial End Date:**	4th Qtr. 2011
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This project constructed utility connections, including electrical and gas, for a 1.4 MW fuel cell power system to be operated on the Plant's digester gas. The fuel cell system is being provided as part of a Power Purchase Agreement (PPA) with an energy company to finance, develop, design, construct, own, operate and maintain a fuel cell power system operated on the Plant's digester gas. The electrical output provided by this system will be sold to the City for an agreement term of 20 years. The remaining funding provides for project close-out activities such as as-built drawings, final reports, and claims and dispute resolution.

Summary of Reserves

Project Name:	**Reserve for Biosolids Program**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$20,000,000	**Revised Start Date:**	
Total Budget:	$20,000,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This reserve provides funding for the removal of inactive lagoon biosolids, as well as the design and procurement of dewatering equipment upon the completion of pilot testing and further studies to be conducted in 2011-2012.

Project Name:	**Reserve for Digester Rehabilitation**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$24,881,000	**Revised Start Date:**	
Total Budget:	$24,881,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This reserve sets aside funding for the Digester Rehabilitation project. It is expected that significant funding will be needed to complete this project. The exact cost estimates will be refined as Plant Master Plan recommendations and possible technologies are evaluated.

Project Name:	**Reserve for Electrical Reliability Improvements**	**Initial Start Date:**	N/A
		Revised Start Date:	
5-Year CIP Budget:	$10,000,000	**Initial End Date:**	N/A
Total Budget:	$10,000,000	**Revised End Date:**	
Council District:	4		
USGBC LEED:	N/A		

Description: This reserve sets aside funding for contingencies related to the WPCP electrical systems, as well as for activities to be added to the Plant's Electrical Reliability Improvements project in the future, once plans for these improvements are more fully developed.

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.

Summary of Reserves

Project Name:	**Reserve for Odor Control Projects**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$10,000,000	**Revised Start Date:**	
Total Budget:	$10,000,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This reserve provides funding for odor control components of various projects. The scope of these projects and the odor control technologies they will use are still being evaluated and refined.

Project Name:	**Reserve for Rate Studies**	**Initial Start Date:**	N/A
5-Year CIP Budget:	$200,000	**Revised Start Date:**	
Total Budget:	$200,000	**Initial End Date:**	N/A
Council District:	4	**Revised End Date:**	
USGBC LEED:	N/A		

Description: This funding provides a reserve for the study and review of rate structures within the industry. This reserve is funded entirely by the City of San José.

PROPOSED

SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

2011 – 2012

Operating & Maintenance Budget

Submitted by
John Stufflebean, Director
Environmental Services Department
City of San Jose

TO

Treatment Plant Advisory Committee

Chuck Reed	(Chairperson)	Mayor, City of San Jose
Kansen Chu		Councilmember, City of San Jose
John Gatto		Boardmember, Cupertino Sanitary District
Pete McHugh		Vice Mayor, City of Milpitas
Jamie Matthews		Mayor, City of Santa Clara
Kevin Moore		Councilmember, City of Santa Clara
Madison, Nguyen		Councilmember, City of San Jose
Ed Shikada		Deputy City Manager, City of San Jose
Kenneth Yeager		Boardmember, West Valley Sanitation District

SAN JOSE / SANTA CLARA

WATER POLLUTION CONTROL PLANT

700 Los Esteros Road
San Jose, California 95134

2011-2012

P R O P O S E D

Operating & Maintenance Budget

Environmental Services Department
City of San Jose

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

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San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

BUDGET SUMMARY

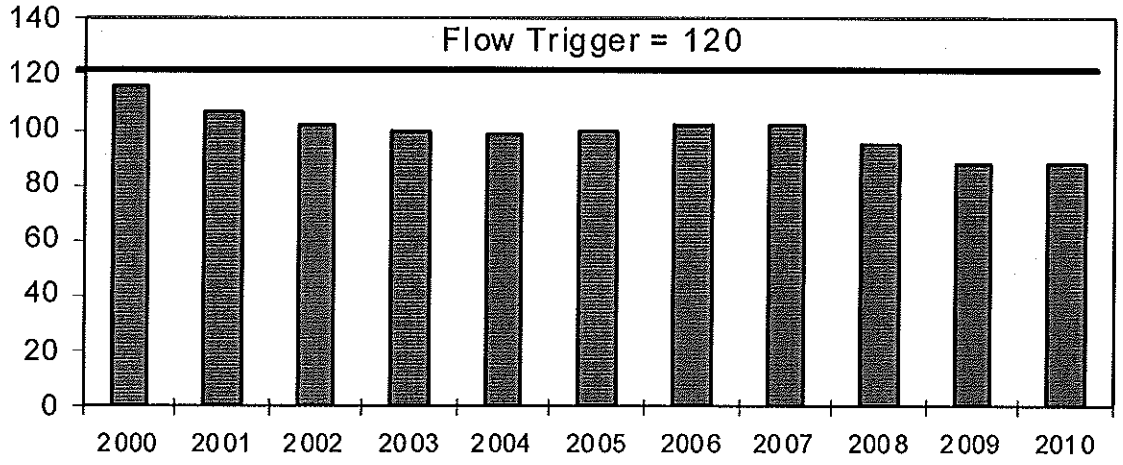
	Adopted 10-11	Proposed 11-12	Change
Treatment Plant Operating Fund Budget	78,343,230	77,956,534	(0.5%)
ESD Authorized Positions	354.75	355.20	0.1%

BUDGET HIGHLIGHTS 2010-2011

- Additional resources to address succession planning and comprehensive staff training programs are recommended for 2011-2012.
- The addition of a permanent air regulations specialist is recommended to resolve air quality regulation compliance issues.

Budget Byte

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



TREATMENT PLANT OPERATING FUND BUDGET SUMMARY

Budget Summary	2009-10 Actual Expenses	2010-11 Adopted Budget	2011-12 Forecast Budget	2011-12 Proposed Budget
Personal Services	39,416,373	43,325,189	44,180,231	43,053,983
Non-Personal Expenses	21,052,630	24,233,118	24,005,091	24,723,275
Equipment	589,412	825,000	825,000	825,000
Inventory	316,399	400,000	400,000	400,000
Department Expenses	61,374,814	68,783,307	69,410,322	69,002,258
Overhead	6,892,623	7,228,539	7,503,223	6,429,975
City Hall Debt Service	681,682	886,403	664,061	850,879
Workers' Compensation	617,377	700,000	700,000	700,000
City Services	500,784	744,981	685,959	973,422
City Expenses	8,692,466	9,559,923	9,553,243	8,954,276
TOTAL EXPENSES	$70,067,280	$78,343,230	$78,963,565	$77,956,534

ESTIMATED COST DISTRIBUTION

2011-12 Estimated Total Gallons Treated (MG)	(1) Percent of Total Sewage Treated	City / District	2011-12 Projected
24,972.734	65.087	City of San Jose	$50,739,570
5,094.298	13.505	City of Santa Clara	10,528,030
30,067.032	78.592	Sub-Total	$61,267,600
3,385.881	8.956	West Valley Sanitation District	6,981,787
1,927.447	5.268	Cupertino Sanitary District	4,106,750
2,272.369	5.868	City of Milpitas	4,574,489
381.538	1.031	Sanitation District # 2 - 3	803,732
105.505	0.285	Burbank Sanitary District	222,176
8,072.740	21.408	Sub-Total	$16,688,934
38,139.772	100.0	TOTAL	$77,956,534

(1) Composite of four parameters (flow, BOD, SS, ammonia). Source 2011-12 Revenue Program.

OVERVIEW

This year's TPAC Budget, in response to member requests, is a revision more similar to those budgets presented during the 1990s. The budget, in terms of the Environmental Services Department, now reflects greater detail including both at the program level and by type of expenditure, as well as total of personnel by classification.

The 2011-12 Proposed Treatment Plant Operating Budget recommends a 0.5% decrease over the 2010-11 Adopted Budget. This decrease is largely due to negotiated and projected salary and benefit concessions from bargaining units covered within the TPAC Budget. Although similar concessions were experienced during the current fiscal year, these were not reflected at the time of last year's proposed and initial adopted budgets. Also included in the proposed budget are the non-personnel budget decreases related to energy, as natural-gas prices remain low compared to previous year averages; and additional energy savings projects continue to reduce overall consumption.

These decreases are largely offset, however, by additional costs associated with pension benefits and increases within the non-personnel budget for aspects such as bio-solids hauling and the annual fees associated with the State and other organizations. Also of note, is the fact that the anticipated increase in chemical expenditures will not be fully realized until FY2011-12 due to minor delays in initiating the full system.

Further offsetting these decreases are proposals which include funding for ongoing aspects such as succession planning and expanded training programs, an air regulations specialist to address increasingly stringent emissions regulations, and continuation of support for the Plant Master Plan.

The following sections provide proposals which describe in more detail the additional expenditures, and a breakdown by program of all associated costs by program.

OVERVIEW CONTINUED

DEPARTMENT BUDGET SUMMARY

Budget Summary	2009-10 Actual 1	2010-11 Modified 2	2011-12 Forecast 3	2011-12 Proposed 4	% Change (2 to 4)
Dollars by Program					
Treatment Plant O&M	39,310,126	40,502,083	42,410,496	42,569,843	5.1%
WatershedProtection	8,700,016	10,179,923	10,800,545	10,627,091	4.4%
South Bay Water Recycling	3,736,564	4,549,518	4,892,418	4,813,847	5.8%
Technical Svcs	4,582,521	4,723,758	4,557,276	4,284,651	(9.3%)
Mgmt & Admin Svcs	2,941,004	2,941,403	3,247,786	3,166,686	7.7%
Envmtl Compliance & Safety	516,482	686,720	1,265,816	1,383,992	101.5%
Communications	1,001,018	1,130,038	1,231,194	1,211,421	7.2%
Office of Sustainability	587,083	2,123,271	1,004,790	944,726	(55.5%)
Total	$ 61,374,814	$ 66,836,714	$ 69,410,322	$ 69,002,258	3.2%
Dollars by Category					
Personal Services					
Salaries	28,172,531	28,815,114	28,877,749	25,929,105	-10.0%
Pension	6,304,282	6,052,588	9,607,493	11,429,889	88.8%
Medical	3,880,174	4,984,228	5,043,323	5,043,323	1.2%
Overtime	1,059,386	651,666	651,666	651,666	0.0%
Subtotal	$ 39,416,373	$ 40,503,596	$ 44,180,231	$ 43,053,983	6.3%
Non-Personal/Equipment					
Energy	4,579,547	5,200,000	4,600,000	4,600,000	(11.5%)
Supplies & Materials	4,650,475	4,351,325	4,350,821	4,350,821	(0.0%)
Chemicals	1,240,114	2,655,000	2,655,000	2,655,000	0.0%
Contractual Services	6,466,062	8,655,153	7,564,688	8,314,688	(3.9%)
All Others	5,022,243	5,471,640	6,059,581	6,027,766	10.2%
Subtotal	$ 21,958,441	$ 26,333,118	$ 25,230,090	$ 25,948,275	-1.5%
Total	$ 61,374,814	$ 66,836,714	$ 69,410,322	$ 69,002,258	3.2%
Authorized Positions	364.27	354.75	356.47	355.20	0.1%

BUDGET PROPOSALS

Budget Proposals

Proposed Program Changes	Positions	Treatment Plant Appropriations
1. Environmental Services Department Employee Total Compensation Reduction		**(3,325,516)**

As directed at the November 18, 2010, 2011-2012 Organizational and Budget Planning Special Council Meeting, the City Council approved direction for labor negotiations to achieve a 10% ongoing total employee compensation reduction for all bargaining groups and to roll back any general wage increases received in 2010-2011. Direction was also included to pursue City Auditor's recommendations for healthcare cost containment including increased cost sharing, increased co-pays, reduced health and dental in-lieu costs, and elimination of dual coverage.

For 2011-2012, agreements to achieve these compensation reductions were approved by the City Council on March 22, 2011, for the San Jose Fire Fighters, IAFF, Local 230 and on April 19, 2011, for AEA, AMSP and CAMP. Approval for compensation changes for Unit 99 and Units 81/82 also occurred on April 19, 2011. Ongoing total compensation reductions for the remaining bargaining groups (ABMEI, ALP, CEO, IBEW, MEF, OE3, and POA), as directed by the City Council, are assumed in this budget.

The compensation reduction actions, which vary by employee group, include: base pay reductions, reversing the additional employee contributions to retirement to offset the City's contributions, healthcare cost sharing changes (from 90% City/10% employee to 85% City/15% employee), healthcare plan design changes including increased co-pays, changes in healthcare in lieu and elimination of dual coverage. The specific actions are described in each bargaining unit's agreement, as applicable, with the City that can be found at: http://www.sanjoseca.gov/employeerelations/labor.asp.

2. Treatment Plant Technical Document Management Program	**(1.90)**	**(202,691)**

This action eliminates 4.0 positions (1.0 Associate Engineer, 1.0 Engineer, 1.0 Senior Engineering Technician, and 1.0 Engineering Technician) at the Water Pollution Control Plant. These positions are responsible for creating a centralized technical library and document management system for the Treatment Plant, as well as updating over 6,000 electrical drawings and process and instrumentation diagrams. The Plant Technical Library was brought online in November 2009, and the remaining electrical drawing and diagram updates are expected to be completed by June 2011. (Ongoing savings: $281,419)

3. Environmental Services Department Administrative Staffing	**(.90)**	**(93,150)**

This action eliminates .65 Principal Accountant and 0.25 Office Specialist with no impact to operations. The Principal Accountant supported Phase I implementation of the Treatment Plant's Computerized Management Maintenance System (CMMS), which is now complete. The duties of the vacant part-time Office Specialist position have been absorbed by existing staff. (Ongoing savings: $108,191)

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
4. Environmental Compliance Staffing	**(.33)**	**(44,644)**

This action eliminates 1.0 Associate Engineer position in the Municipal Environmental Compliance (MEC) Program, .33 which is covered by Fund 513. The MEC Program provides oversight of the investigation, cleanup, and monitoring of the City's closed landfills, leaking underground storage tank sites, and other remediated City-owned sites requiring ongoing compliance obligations. The Program also provides environmental due diligence as part of the City's property acquisition process. The work performed by this position will be absorbed by the remaining staff with minimal service level impacts. (Ongoing savings: $51,627)

5. Fleet Staffing and Vehicle Pool Program **(23,000)**

This proposal reduces Environmental Services Department non-personal/equipment funding for vehicle maintenance and operations as a result of proposed reductions in the Public Works Department. This includes the elimination of two positions (1.0 Mechanic, 1.0 Senior Office Specialist). The elimination of the Mechanic position would result in the lengthening of build-up time for new vehicles (light installation, communication equipment, and decal application). The elimination of the Senior Office Specialist position would result in delays in response times to work order inquiries. (Ongoing savings: $23,000)

6. Environmental Services Department Annual Retirement Contribution **1,822,396**

This action increases the Environmental Services Department personal services allocation as a result of the adoption of changes by the Federated Retirement Board (Board) to the policy determining the City's share of the annual required contribution to the Federated City Employees' Retirement System. To ensure the fiscal health of the Plan, the Board revised the funding policy requiring the City to contribute the greater of the dollar amount reported in the actuarial valuation (adjusted for interest based on the time of the contributions) or the dollar amount determined by applying the percent of payroll contribution reported in the actuarial valuation to the actual payroll for the fiscal year. Due to the contraction in City positions proposed in this document, with this newly adopted contribution methodology, the City is required to pay a minimum dollar amount regardless of the actual payroll experienced to ensure that the Plan is funded in accordance with the annual actuarial valuation. To cover these costs, total contributions of $108.4 million in all City funds and $54.5 million in the General Fund, assuming a July 1 pre-payment, is required to be made in 2011-2012.

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations

7. Treatment Plant Clarifier Maintenance **750,000**

This action provides non-personal/equipment funding in the San José/Santa Clara Treatment Plant Operating Fund for the routine coating of clarifiers (extremely large tanks used to hold wastewater during the treatment process). Due to the corrosive nature of wastewater, each of these tanks must be coated with protective material to prevent major rehabilitation. This proposal provides ongoing funding to coat approximately five of the Treatment Plant's 42 clarifiers, allowing each tank to be coated once every eight to nine years, which is sufficient to protect the tanks. The coating was previously funded by the Treatment Plant Capital Fund, and this action to shifts the activity to the operating fund, which is the more appropriate fund for this expense. (Ongoing costs: $750,000)

8. Environmental Services Department Unemployment Contribution **376,871**

This action increases the Environmental Services Department personal services allocation to ensure sufficient funding to the Unemployment Insurance Fund for projected unemployment insurance claims. Based on potential claims from employee separation from service and the approved federal extension of unemployment benefits up to a total of 99 weeks, an increase to the unemployment contribution is recommended. To cover these costs, the total transfer of $12.3 million across all City funds and $8.8 million in the General Fund to the Unemployment Insurance Fund is included in this document.

9. Plant Air Regulations Compliance **1.00** **140,764**

This action makes permanent 1.0 Senior Engineer funded by the San José/Santa Clara Treatment Plant Operating Fund to ensure the Treatment Plant meets its increasingly complex air quality regulations. The Treatment Plant operates numerous air emissions sources such as engine blowers and generators, off-road equipment, and boilers, which are regulated by the Bay Area Air Quality Management District. The regulations have become increasingly stringent, requiring full time, expert help to create and implement a program for compliance, ensure the necessary permitting, testing and sampling, report to and interact with regulatory agencies, and perform other tasks necessary for compliance. These needs have been addressed through temporary help, however it has become clear that regulations will continue to become more complex, making the need ongoing. (Ongoing costs: $140,423)

10. Water Pollution Control Plant Succession Planning **127,168**

This action extends funding in the San José/Santa Clara Treatment Plant Operating Fund for a Senior Analyst position through June 2012 for specialized succession planning services at the Treatment Plant, which began in 2008-2009, and will conclude in 2011-2012. It is estimated that 50% of the current staffing compliment at the Plant will be eligible to retire in the next five years. Given the difficulty in recruitment and retention of specialized trade staff, a comprehensive succession and knowledge retention plan was determined to be necessary. (Ongoing costs: $0)

Budget Proposals (cont'd)

Proposed Program Changes	Positions	Treatment Plant Appropriations
11. Environmental Services Department Staffing Relocation		**63,736**

This action provides funding for moving costs to relocate ESD staff from South Bay Water Recycling, Treatment Plant Administration, and the Environmental Services Technical Services Division to vacant space in City Hall. Relocating this staff will provide improved working conditions and create efficiencies by housing related work groups in the same building. This move also frees up space at the Water Pollution Control Plant, which will be needed for consultants who will be assisting in the ramp-up of the Capital Improvement Program at that facility. The City Hall debt service will be offset through increased transfers to the City Hall Debt Service Fund as displayed on the Budget Summary page within this document. (Ongoing costs: $186,818)

2011-2012 Total Department Proposals	(1.47)	(408,066)

DETAIL PROGRAM BUDGETS

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: WPCP OPERATIONS & MAINTENANCE
RESPONSIBLE MANAGER: JON NEWBY

PROGRAM PURPOSE AND DESCRIPTION

Water Pollution Control provides constant 24-hour operation and maintenance of the regional San Jose/Santa Clara Water Pollution Control Plant. The program is staffed with personnel from operations, maintenance, and engineering disciplines to assure 100% availability of critical equipment and to provide process adjustments on a continuing basis for maximum process efficiency and reliability.

TREATMENT PLANT O&M PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Air Conditioning Mech	3.00	3.00	3.00
Analyst II C	2.00	2.00	1.00
Assist Hvy Dsl Eq Op Mech	3.00	3.00	3.00
Assoc Engineer	3.00	1.00	
Assoc Engineering Tech	2.00	2.00	2.00
Custodian	4.00		
Deputy Dir U	1.00	1.00	1.00
Division Manager	3.00	3.00	3.00
Electrician	9.00	8.00	8.00
Electrician Supervisor	1.00	1.00	1.00
Engineering Technician II	3.00	3.00	3.00
Geographic Systms Spec II	1.00	1.00	1.00
Groundsworker	1.00	1.00	1.00
Heavy Diesel Equip Op/Mec	13.00	13.00	13.00
Heavy Diesel Equip Supvr	1.00	1.00	1.00
Heavy Equip Oper	5.00	5.00	5.00
Info Systs Analyst	1.00	1.00	1.00
Instrument Control Supvr	1.00	1.00	1.00
Instrument Control Technician	7.00	8.00	8.00
Maintenance Assistant	1.00	1.00	1.00
Maintenance Supervisor	1.00	1.00	1.00
Maintenance Worker I	3.00	3.00	3.00
Office Specialist II	1.00	1.00	1.00
Painter Supvr WPCP	1.00	1.00	1.00
Painter WPCP	6.00	6.00	6.00
Plant Asst Gen Ops Supvr	1.00	1.00	1.00
Plant Attendant	1.00	2.00	2.00
Plant Mechanic	29.00	28.00	28.00
Plant Mechanical Supvr	2.00	2.00	2.00
Plant Operator	38.00	38.00	38.00
Plant Shift Supervisor	5.00	5.00	5.50
Prin Office Specialist	1.00	1.00	1.00
Process & Systems Spec II	1.00	1.00	1.00

TREATMENT PLANT O&M PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Program Manager II	1.00	1.00	1.00
Secretary	1.00	1.00	1.00
Senr Air Cond Mechanic	1.00	1.00	1.00
Senr Analyst	1.00	1.00	2.00
Senr Custodian	1.00	1.00	1.00
Senr Electrician	2.00	2.00	2.00
Senr Engineer	2.00	2.00	2.00
Senr Engineering Tech	1.00	3.00	2.00
Senr Geographic Syst Spec	1.00	1.00	1.00
Senr Hvy Dsl Eq Oper Mech	3.00	3.00	3.00
Senr Hvy Equipment Oper	2.00	2.00	2.00
Senr Instrument Control Tech	2.00	2.00	2.00
Senr Maintenance Worker	1.00	1.00	1.00
Senr Painter	1.00	1.00	1.00
Senr Plant Mechanic	5.00	6.00	6.00
Senr Plant Operator	14.00	13.00	13.00
Senr Process & Syst Spec	2.00	2.00	2.00
Supply Clerk	1.00	1.00	1.00
Systems Control Supv	1.00	1.00	1.00
Training Specialist	1.00		
Warehouse Supervisor	1.00	0.82	0.88
Warehouse Worker I	3.00	1.64	1.76
Warehouse Worker II	1.00	1.64	1.76
Yard Master	0.71		
Total Full-Time Positions	204.71	198.10	196.90

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

TREATMENT PLANT O&M DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	15,251,837	15,676,592	14,024,126
COMPENSATED ABSENCE	1,229		
SALARIES-REG-PART TIME	115,764		
SALARIES - OVER TIME	978,003	598,351	599,573
PENSION CONTRIBUTION	3,445,822	3,036,494	6,172,352
MEDICAL & OTHER BENEFITS	2,287,519	2,915,235	2,840,302
Sub Total	22,080,174	22,226,672	23,636,353
UTILITIES: GAS	2,048,663	3,400,000	1,200,000
UTILITIES: ELECTRICITY	2,050,508	1,200,000	2,700,000
SUPPLIES AND MATERIALS	4,047,584	3,569,100	3,569,682
STORES FUND - STORES	120,994	88,167	89,145
TELEPHONE	110,445	62,805	62,805
POSTAGE	3,525	6,000	6,000
PRINT/ADV-OUTSIDE VENDORS	2,548	4,750	4,750
DUPLICATING-STORES FUND	27	1,000	1,000
UTILITIES: OTHER	170,877	139,000	139,000
POSTAGE/DELIVERY SERVICE	86		
CHEMICALS	1,240,114	2,655,000	2,655,000
RENT: EQUIPMENT	379,287	421,286	421,424
TRANS/TRAVEL: IN COUNTY	599	14,144	14,144
TRANS/TRAVEL: OUT OF COUNT	8,337	28,395	28,395
TRANS/TRAVEL: OUT OF STATE	5,818	51,069	51,069
TRAINING	105,482	110,751	110,882
MILEAGE REIMBURSEMENT	3,806	150	150
VEHICLE OPERATING COSTS	751,779	532,016	780,016
DUES & SUBSCRIPTIONS	841,803	533,300	883,300
COMPUTER DATA PROCESSING	457,650	283,422	281,422
PROF & CONSULTANT SVCS	3,792,812	3,442,464	4,220,714
BOOKS	578		
PW CAPITAL SUPPORT CHARGE	2,358		
INSURANCE	136,613	564,592	564,592
TAXES	1,978		
CAPITAL OUTLAY	179,284		
CHANGE ORDERS-CAP	17,204		
MACHNRY/EQUIPMT	432,793	768,000	750,000
Sub Total	$ 16,913,554	$ 17,875,411	$ 18,533,490
Combined Totals	$ 38,993,728	$ 40,102,083	$ 42,169,843

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

PROGRAM: WATERSHED PROTECTION

RESPONSIBLE MANAGER: MELODY TOVAR

PROGRAM PURPOSE AND DESCRIPTION

Provide environmental enforcement functions to support Department programs, enforce Federal, State and local regulations pertaining to industrial waste. The Source Control/Pretreatment Program provides inspection and monitoring of industrial waste dischargers, maintains a source reduction program, and ensures that industrial dischargers to the SJ/SC Water Pollution Control Plant are in compliance with all applicable industrial waste ordinances within San Jose and the tributary agencies. This program also provides laboratory, engineering and other specialized services in support of the treatment facility.

WATERSHED PROTECTION PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Analyst II C	1.50	1.50	0.75
Aquatic Toxicologist	1.00	1.00	1.00
Assoc Engineer	1.00	1.00	1.00
Assoc Environ Serv Spec			1.00
Biologist			1.00
Chemist	7.00	8.00	8.00
Chemist PT	1.00		
Deputy Dir U	0.75	0.75	0.75
Division Manager		0.67	
Environment Insp, Assistant	4.00	4.00	4.00
Environment Inspector I	4.00	1.00	2.00
Environment Inspector II	15.00	19.00	18.00
Environment Inspector, Sr	2.00	2.00	2.00
Environment Serv Prog Mgr	1.00	1.00	1.80
Environment Serv Spec	2.00	2.00	1.00
Environmental Laboratory Mgr	1.00	1.00	1.00
Environmental Laboratory Supvr	2.00	2.00	2.00
Laboratory Tech I	14.00	14.00	3.00
Laboratory Tech II			10.00
Microbiologist	2.00	2.00	2.00
Office Specialist II	3.40	2.55	2.55
Office Specialist II PT	0.25	0.25	0.00
Prin Office Specialist	0.85	0.85	0.85
Sanitary Engineer	3.00	3.00	3.00
Senr Engineer	1.00	1.00	1.00
Senr Office Specialist	0.85	1.70	1.70
Staff Specialist	1.00	0.85	0.85
Supervg Environ Serv Spec	1.00	1.00	1.00
Total Full-Time Positions	70.60	72.12	71.25

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

WATERSHED PROTECTION DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	5,392,814	5,748,825	5,141,709
SALARIES-REG-PART TIME	91,833	10,370	
SALARIES - OVER TIME	22,689	27,733	27,733
PENSION CONTRIBUTION	1,216,821	1,305,551	2,280,794
MEDICAL & OTHER BENEFITS	708,232	972,483	1,024,394
Sub Total	$ 7,432,389	$ 8,064,962	$ 8,474,630
SUPPLIES AND MATERIALS	392,092	550,048	550,048
STORES FUND - STORES	4,171	7,650	7,650
TELEPHONE	26,608	58,550	58,550
POSTAGE	10,755	15,500	15,500
PRINT/ADV-OUTSIDE VENDORS	949	34,500	34,500
RENT: LAND & BUILDINGS	-	117,960	117,960
RENT: EQUIPMENT	61,124	53,800	53,800
TRANS/TRAVEL: IN COUNTY	20,034	12,575	12,575
TRANS/TRAVEL: OUT OF COUNT	3,653	29,234	29,234
TRANS/TRAVEL: OUT OF STATE	-	35,200	35,200
TRAINING	13,185	43,680	43,680
MILEAGE REIMBURSEMENT	2,330	5,200	5,200
VEHICLE OPERATING COSTS	27,599	29,596	29,596
DUES & SUBSCRIPTIONS	19,984	53,537	53,537
COMPUTER DATA PROCESSING	44,338	103,750	66,250
PROF & CONSULTANT SVCS	520,383	889,181	964,181
MACHNRY/EQUIPMT	120,426	75,000	75,000
Sub Total	$ 1,267,627	$ 2,114,961	$ 2,152,461
Combined Totals	$ 8,700,016	$ 10,179,923	$ 10,627,091

PROGRAM: SOUTH BAY WATER RECYCLING
RESPONSIBLE MANAGER: MANSOUR NASSER

PROGRAM PURPOSE AND DESCRIPTION

This program is responsible for coordinating the operations, maintenance and management of the water recycling system in the three cities it serves, provides customer support and training and planning and implementing SBWR system improvements and facilitates compliance with regulations through participation in programs and adoption of practices which result in water conservation, and wastewater flow reductions.

SOUTH BAY WATER RECYCLING PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Analyst II C	0.30	0.30	0.30
Assoc Construction Insp	0.70	0.70	0.70
Assoc Engineer	2.90	2.40	2.40
Assoc Engineering Tech	1.20	1.20	1.20
Cross Connection Spec	0.30	0.30	0.30
Deputy Dir U	0.50	0.50	0.50
Division Manager	1.20	1.00	1.00
Electrician	0.05	0.05	0.05
Engineer II	0.40	0.45	0.45
Engineering Technician II	0.25	0.25	0.25
Environment Serv Spec	3.76	3.76	3.76
Maintenance Superintend	0.30	0.30	0.30
Maintenance Supervisor	0.10	0.20	0.20
Prin Construction Inspect	0.30	0.30	0.30
Prin Water Systems Tech	0.10		
Senr Construction Insp	0.30	0.30	0.30
Senr Engineer	0.40	0.40	0.40
Senr Engineering Tech	1.20	1.20	1.20
Senr Office Specialist	0.30	0.30	0.30
Senr Water Systems Tech	0.30	0.30	0.30
Staff Technician	0.50		
Supervg Environ Serv Spec	1.00	1.00	1.00
Water Meter Reader	0.15	0.15	0.15
Water Systems Technician	0.90	0.90	0.90
Total Full-Time Positions	17.41	16.26	16.26

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

SOUTH BAY WATER RECYCLING DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	1,355,885	1,453,966	1,377,401
COM P ABSENCES	6,894		
SALARIES-REG-PART TIME	25,070		
SALARIES - OVER TIME	3,345	12,217	12,217
OTHER SALARY		40,600	
PENSION CONTRIBUTION	305,447	353,372	595,418
MEDICAL & OTHER BENEFITS	182,792	219,568	242,016
Sub Total	$ 1,879,431	$ 2,079,723	$ 2,227,052
UTILITIES: ELECTRICITY	480,376	$ 600,000	$ 700,000
SUPPLIES AND MATERIALS	19,640	118,425	118,425
STORES FUND - STORES	250	1,950	1,950
TELEPHONE	2,526	12,500	12,500
POSTAGE	34	3,350	3,350
PRINT/ADV-OUTSIDE VENDORS	7,411	16,224	16,224
UTILITIES: OTHER	232	500	500
DUPLICATING-STORES FUND		1,900	1,900
RENT: EQUIPMENT	1,907	3,000	3,000
TRANS/TRAVEL: IN COUNTY	466	3,950	3,950
TRANS/TRAVEL: OUT OF COUNTY	2,670	7,900	7,900
TRANS/TRAVEL: OUT OF STATE	0	7,900	7,900
TRAINING	4,949	10,800	10,800
MILEAGE REIMBURSEMENT	2,796	3,750	3,750
VEHICLE OPERATING COSTS	16,963	13,388	30,388
DUES & SUBSCRIPTIONS	39,799	37,998	37,998
COMPUTER DATA PROCESSING	7,408	17,100	17,100
PROF & CONSULTANT SVCS	1,228,210	1,609,160	1,609,160
PW CAPITAL SUPPORT CHARGE	5,305		
INSURANCE	0		
MACHNRY/EQUIPMT	36,192		
Sub Total	$ 1,857,133	$ 2,469,795	$ 2,586,795
Combined Totals	$ 3,736,564	$ 4,549,518	$ 4,813,847

PROGRAM: MGMT & ADMINISTRATIVE SERVICES
RESPONSIBLE MANAGER: LINDA CHARFAUROS

PROGRAM PURPOSE AND DESCRIPTION

Provides support services including: financial and accounting services, revenue programs, contract administration, grant administration, capital improvement and operating budget preparation, analysis, bond programs coordination and control, land leasing, sewerage billings, customer relations, tributary agency relations, and Joint Powers administration.

MGMT & ADMINISTRATIVE SERVICES PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Account Clerk II	0.71	0.67	0.65
Accountant II	0.71	0.67	0.65
Accounting Tech	1.42	1.34	1.3
Administrative Assist C	0.71	0.67	0.65
Administrative Officer	0.71	0.67	0.65
Analyst II C	2.84	2.68	3.25
Assist DirU	0.71	0.67	0.65
Dir Environmental Serv U	0.71	0.67	0.65
Office Specialist II	3.55	2.68	1.95
Prin Accountant	1.42	1.34	0.65
Prin Office Specialist	1.42	1.34	1.3
Senr Account Clerk	2.84	2.68	2.62
Senr Accountant	3.55	3.35	3.25
Senr Analyst	2.84	3.01	2.95
Staff Specialist	0.71	0.67	0.65
Staff Technician	0.71	0.67	1.3
Total Full-Time Positions	25.56	23.78	23.12

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

MGMT & ADMINISTRATIVE SERVICES DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	1,916,418	1,862,601	1,776,096
SALARIES-REG-PART TIME	35,534		
SALARIES - OVER TIME	3,314	12,143	12,143
OTHER PERSONNEL	7,401	57,195	
PENSION CONTRIBUTION	469,177	480,972	788,948
MEDICAL & OTHER BENEFITS	257,472	296,371	299,667
Sub Total	$ 2,689,317	$ 2,709,282	$ 2,876,854
SUPPLIES AND MATERIALS	41,099	28,140	27,300
STORES FUND - STORES	9,939	3,350	3,250
TELEPHONE	35,861	30,300	30,300
POSTAGE	10,934	15,410	14,950
PRINT/ADV-OUTSIDE VENDORS	1,136	4,020	3,900
DUPLICATING-STORES FUND	0		-
RENT: EQUIPMENT	17,135	20,100	19,500
TRANS/TRAVEL: IN COUNTY	475	1,340	1,300
TRANS/TRAVEL: OUT OF COUNTY	562	2,680	2,600
TRANS/TRAVEL: OUT OF STATE	3,095	2,010	1,950
TRAINING	12,025	18,426	17,875
MILEAGE REIMBURSEMENT	2,071	1,340	1,300
VEHICLE OPERATING COSTS	1,238	-	
DUES & SUBSCRIPTIONS	7,611	8,040	7,800
COMPUTER DATA PROCESSING	6,516	5,360	5,200
PROF & CONSULTANT SVCS	101,989	91,605	152,607
Sub Total	$ 251,686	$ 232,121	$ 289,832
Combined Totals	$ 2,941,004	$ 2,941,403	$ 3,166,686

PROGRAM: TECHNICAL SERVICES
RESPONSIBLE MANAGER: BHAVANI YERRAPOTU

PROGRAM PURPOSE AND DESCRIPTION

This division provides engineering and other specialized services in support of the City's environmental programs. Areas of responsibility include engineering design and construction; process and environmental engineering; and computer services.

TECHNICAL SERVICES PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Assoc Engineer	6.00	5.50	3.80
Assoc Engineering Tech	1.00	0.30	0.30
Assoc Environ Serv Spec		1.00	
Biologist	2.75	2.75	
Division Manager	1.00	1.00	1.00
Engineer II	1.00	0.30	0.00
Engineering Technician II	1.00	1.00	0.00
Environment Serv Spec	1.00		1.00
Environmental Laboratory Mgr	0.90	0.75	
Info Systs Analyst	0.65	0.65	0.50
Network Engineer	0.11	0.65	0.69
Network Technician II	0.76	1.30	1.38
Office Specialist II	1.00	1.00	2.00
Planner II	1.00		
Sanitary Engineer	4.00	3.30	3.30
Senr Construction Insp	1.00	0.30	0.30
Senr Engineer	3.00	2.60	2.60
Senr Engineering Tech	2.00	0.60	1.30
Senr Process & Syst Spec	0.65	0.65	0.69
Staff Specialist	1.00	1.00	1.00
Supervg Applicat Analyst	0.11	0.65	0.66
Supervg Environ Serv Spec	2.00	2.00	1.00
Systems Apps Progmr II	1.30	1.30	1.85
Total Full-Time Positions	33.23	28.60	23.37

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

TECHNICAL SERVICES DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	2,723,062	2,482,746	1,902,439
COMPENSATED ABSENCE	21,974		
SALARIES-REG-PART TIME	46,741		
SALARIES - OVER TIME	46,420	1,222	
PENSION CONTRIBUTION	605,406	650,724	847,675
MEDICAL & OTHER BENEFITS	305,765	380,130	320,493
Sub Total	$ 3,749,368	$ 3,514,822	$ 3,070,607
SUPPLIES AND MATERIALS	118,796	53,800	53,880
STORES FUND - STORES	1,026	2,990	3,030
TELEPHONE	30,075	4,544	4,569
POSTAGE	2,002	1,900	1,900
PRINT/ADV-OUTSIDE VENDORS	9,408	38,988	39,018
RENT: LAND & BUILDINGS	44,447		-
RENT: EQUIPMENT	3,425	715	759
TRANS/TRAVEL: IN COUNTY	975	5,100	5,100
TRANS/TRAVEL: OUT OF COUNTY	5,004	11,000	11,000
TRANS/TRAVEL: OUT OF STATE	8,820	23,500	23,500
TRAINING	10,367	24,351	24,871
MILEAGE REIMBURSEMENT	5,021	3,924	3,950
DUES & SUBSCRIPTIONS	17,311	98,714	98,724
COMPUTER DATA PROCESSING	141,410	95,410	99,743
PROF & CONSULTANT SVCS	433,720	844,000	844,000
TAXES	1,344		
Sub Total	$ 833,153	$ 1,208,936	$ 1,214,044
Combined Totals	$ 4,582,521	$ 4,723,758	$ 4,284,651

PROGRAM: ENVIRONMENTAL COMPLIANCE & SAFETY

RESPONSIBLE MANAGER: NAPP FUKUDA

PROGRAM PURPOSE AND DESCRIPTION

Provides support for air and wastewater compliance as well general occupational safety, hazardous materials and hazardous waste management support to the Plant and other departments as needed, through a variety of programs as required by local, state and federal regulations. The desired outcome is to create a safe working environment for employees and maintain compliance with all local, state and federal regulations pertaining to occupational safety, hazardous materials and hazardous waste management.

ENVNMTL COMPLIANCE & SAFETY PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Analyst II C	0.54	0.55	
Assoc Engineer		0.23	1
Assoc Environ Serv Spec	0.8		0.96
Biologist			2.7
Environment Compl Officer	0.26	0.36	0.4
Environment Serv Spec	0.2	1.95	1.66
Senr Analyst	0.54	0.55	0.6
Senr Engineer			1.00
Supervg Environ Serv Spec	0.79	0.72	1.86
Total Full-Time Positions	3.13	4.36	10.18

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

ENVNMTL COMPLIANCE & SAFETY DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	333,076	407,784	753,432
SALARIES-REG-PART TIME	21		
SALARIES - OVER TIME	101	-	
PENSION CONTRIBUTION	74,764	61,727	335,711
MEDICAL & OTHER BENEFITS	47,805	67,444	144,934
Sub Total	$ 455,766	$ 536,955	$ 1,234,077
SUPPLIES AND MATERIALS	3,888	3,094	3,171
STORES FUND - STORES	50	40	80
TELEPHONE	127	25	25
POSTAGE	22	62	62
PRINT/ADV-OUTSIDE VENDORS	3,379	-	-
DUPLICATING-STORES FUND	0	20	20
RENT: LAND & BUILDINGS	216	210	210
RENT: EQUIPMENT	0	65	65
TRANS/TRAVEL: IN COUNTY	35	27	27
TRANS/TRAVEL: OUT OF COUNT	0	127	127
TRANS/TRAVEL: OUT OF STATE	0		-
TRAINING	92	1,517	1,550
MILEAGE REIMBURSEMENT	677	120	120
VEHICLE OPERATING COSTS	589	-	-
DUES & SUBSCRIPTIONS	773	1,458	1,458
COMPUTER DATA PROCESSING	24,508	-	-
PROF & CONSULTANT SVCS	26,360	143,000	143,000
Sub Total	$ 60,716	$ 149,765	$ 149,915
Combined Totals	$ 516,482	$ 686,720	$ 1,383,992

PROGRAM: OFFICE OF SUSTAINABILITY
RESPONSIBLE MANAGER: NAPP FUKUDA

PROGRAM PURPOSE AND DESCRIPTION

Provides support and technical expertise to City departments and the community for implementation of the Green Vision goals. The Green Vision project manager works with goal leads citywide to develop and implement the ten goals, involving progress measuring and tracking, supporting Departmental efforts, and troubleshooting key initiatives. Staff focuses on supporting programs related to energy and water efficiency, renewable energy technologies, zero waste, and wastewater use.

SUSTAINABILITY PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Administrative Officer	0.46	0.46	0.41
Environment Serv Prog Mgr	0.46	0.46	0.41
Environment Serv Spec	1.84	1.84	1.23
Environmental Laboratory Mgr			0.75
Senr Engineer			1.00
Staff Technician		0.46	
Supervg Environ Serv Spec	0.92	0.92	0.82
Total Full-Time Positions	3.68	4.14	4.62

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

SUSTAINABILITY DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	350,958	460,072	455,550
SALARIES-REG-PART TIME	2,293		
SALARIES - OVER TIME	206		
SALARIES - CONTRACTUAL		40,640	
PENSION CONTRIBUTION	77,801	70,324	187,102
MEDICAL & OTHER BENEFITS	40,741	67,709	78,112
Sub Total	**$ 471,999**	**$ 638,745**	**$ 720,764**
SUPPLIES AND MATERIALS	2,268	4,028	3,590
STORES FUND - STORES	11	468	418
TELEPHONE	141	354	315
POSTAGE	-	384	342
PRINT/ADV-OUTSIDE VENDOI	38	389	347
DUPLICATING-STORES FUND		389	
RENT: EQUIPMENT	471		346
TRANS/TRAVEL: IN COUNTY	119	735	656
TRANS/TRAVEL: OUT OF COU	289	1,248	1,111
TRANS/TRAVEL: OUT OF STAT	738	-	-
TRAINING	384	4,541	4,047
MILEAGE REIMBURSEMENT	214	812	724
VEHICLE OPERATING COSTS	-	2,000	2,000
DUES & SUBSCRIPTIONS	18,251	13,799	12,300
COMPUTER DATA PROCESSIN	1,423	26,636	23,741
PROF & CONSULTANT SVCS	89,156	1,428,743	174,026
PW CAPITAL SUPPORT CHAR	1,581		
Sub Total	**$ 115,084**	**$ 1,484,526**	**$ 223,963**
Combined Totals	**$ 587,083**	**$ 2,123,271**	**$ 944,727**

PROGRAM: COMMUNICATIONS
RESPONSIBLE MANAGER: JENNIFER GARNETT

PROGRAM PURPOSE AND DESCRIPTION

This program plans and implements the extensive community engagement component for all wastewater efforts. This is currently focused primarily on the Plant Master Plan, a three year master planning effort for the region's wastewater treatment facility that serves eight cities in the South Bay. The desired outcome is to develop and gain public support for a 30-year land use and infrastructure improvement plan for the 50+ year old regional wastewater treatment facility managed by San José.

COMMUNICATIONS PERSONNEL SUMMARY			
Full Time Positions	2009-10	2010-11	2011-12
	Adopted	Adopted	Proposed
Analyst II C	0.45	0.49	0.50
Environment Serv Spec			1.00
Marketing/Public Outrch Mgr	0.90	0.98	1.00
Marketing/Public Outrch Rep I	2.25	2.45	1.00
Marketing/Public Outrch Rep II	0.45	0.49	1.50
Program Manager II	0.45	0.49	0.50
Staff Specialist			0.50
Supervg Environ Serv Spec	0.45	0.49	0.50
Total Full-Time Positions	4.95	5.39	6.50

San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

COMMUNICATIONS DETAILED PROGRAM BUDGET			
Detail/Category	2009-10 Actuals	2010-2011 Modified	2011-2012 Proposed
SALARIES-REG-FULL TIME	488,355	573,723	498,352
SALARIES-REG-PART TIME	5,372		
SALARIES - OVER TIME	5,307		
PENSION CONTRIBUTION	109,045	93,424	221,889
MEDICAL & OTHER BENEFITS	49,848	65,288	93,405
Sub Total	$ 657,928	$ 732,435	$ 813,646
SUPPLIES AND MATERIALS	25,107	24,690	24,725
TELEPHONE	276	319	325
POSTAGE	526	14,000	14,000
PRINT/ADV-OUTSIDE VENDOR	23,029	138,700	138,700
DUPLICATING-STORES FUND	-	6,500	6,500
RENT: LAND & BUILDINGS	6,250		
RENT: EQUIPMENT	8,170		
TRANS/TRAVEL: IN COUNTY	282	663	677
TRANS/TRAVEL: OUT OF COUI	259	150	153
TRAINING	9	2,996	3,057
MILEAGE REIMBURSEMENT	756		
DUES & SUBSCRIPTIONS	2,729	591	603
COMPUTER DATA PROCESSIN	2,265	1,994	2,035
PROF & CONSULTANT SVCS	273,431	207,000	207,000
Sub Total	$ 343,090	$ 397,603	$ 397,775
Combined Totals	$ 1,001,018	$ 1,130,038	$ 1,211,421

PERFORMANCE MEASURES

Performance Measures-Treatment Plant

	2009-2010 Actual	2010-2011 Target	2010-2011 Estimated	2011-2012 Target
Millions of gallons per day discharged to the Bay during average dry weather season State order: 120 mgd or less*	88	90	90	<120
% of time pollutant discharge requirements are met or surpassed	100%	100%	100%	100%
Number of requirement violations				
-Pollutant discharge	NEW	0	0	0
-Air emissions	NEW	0	0	0
% of scheduled industrial inspections completed on time	99%	95%	99%	95%
Cost per million gallons treated	$942	$999	$967	$995
% of customers (permitted dischargers) satisfied or very satisfied with service, based on reliability and pre-treatment services	85%	90%	N/A**	90%

Changes to Performance Measures from 2010-2011 Adopted Budget: No[1]

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

** No survey took place during the specified year. The last survey was completed in September 2010 for 2009-2010. The next survey will be conducted in June 2012, with results available in 2012-2013.

Activity and Workload Highlights

	2009-2010 Actual	2010-2011 Forecast	2010-2011 Estimated	2011-2012 Forecast
Average millions of gallons per day treated	109	110	110	111
Total population in service area	1,416,225	1,399,000	1,399,000	1,405,000

Changes to Activity & Workload Highlights from 2010-2011 Adopted Budget: No[1]

Performance Measures-Recycled Water

	2009-2010 Actual	2010-2011 Target	2010-2011 Estimated	2011-2012 Target
Millions of gallons per day diverted from flow to the Bay for beneficial purposes during the dry weather period*	14.3	16	14	15
Millions of gallons of recycled water delivered annually .	3,068	3,500	3,047	3,700
% of time recycled water quality standards are met or surpassed	99.9%	100%	100%	100%
% of wastewater influent recycled for beneficial purposes during the dry weather period*	14%	15%	14%	15%
Cost per million gallons of recycled water delivered	$1,745	$1,529	$1,844	$1,603
% of recycled water customers rating service as good or excellent, based on reliability, water quality, and responsiveness	N/A**	85%**	82%	N/A**

Changes to Performance Measures from 2010-2011 Adopted Budget: No

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

** Data for this measure comes from the "Overall Satisfaction" parameter as reported in the 2009-2010 Recycled Water Customer Satisfaction Survey. The next scheduled survey will cover 2012-2013.

Activity and Workload Highlights

	2009-2010 Actual	2010-2011 Forecast	2010-2011 Estimated	2011-2012 Forecast
Total number of South Bay Water Recycling customers	602	625	615	640

Changes to Activity & Workload Highlights from 2010-2011 Adopted Budget: No

Performance Measures- Water Conservation

	2009-2010 Actual	2010-2011 Target	2010-2011 Estimated	2011-2012 Target
(Energy) % of energy used at the Water Pollution Control Plant that is renewable	NEW	60%	53%	60%
(Water) % of annual goal for gallons of water conserved tributary area-wide	80%	100%	74%	100%
(Water) Annual net cost per gallon of water conserved through City programs	N/A[1]	NEW	$0.0045	$0.0057
(Water) % of residents demonstrating water conservation knowledge	N/A*	68%	N/A*	40%

Changes to Performance Measures from 2010-2011 Adopted Budget: Yes[1]

* Data for this measure will come from the Water Focus Survey. The next survey is scheduled to occur in 2011 with results available by January 2012.

[1] Changes to Performance Measures from 2010-2011 Adopted Budget:
ʊ "(Water) Net cost per gallon per day of water conserved through City programs" was revised to ""(Water) Annual net cost per gallon of water conserved through City programs" to align more closely with similar performance measures for cost of programs.

Activity and Workload Highlights

	2009-2010 Actual	2010-2011 Forecast	2010-2011 Estimated	2011-2012 Forecast
Millions of gallons per day conserved (tributary area-wide)	0.160	0.28	0.206	0.260
Cumulative millions of gallons per day conserved since July 1992 (tributary area-wide)	8.73	9.00	8.94	9.2

Changes to Activity & Workload Highlights from 2010-2011 Adopted Budget: No

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Subject: REPORT ON BIDS AND AWARD OF CONTRACT FOR THE SAN JOSÉ/SANTA CLARA WPCP, FILTER UNDER-DRAIN SYSTEM RENOVATION AND MEDIA REPLACEMENT (A-4) PROJECT

Council Agenda: 05-24-11
Item:

City Council Action Request

Departments:	**CEQA:**	**Coordination:**	**CMO Approval:** 5/9/11
Environmental Services, Public Works	Exempt, PP11-024	Office of Risk Management, City Manager's Budget Office, City Attorney's Office, and the Treatment Plant Advisory Committee	**Dept. Approval:** John Stufflebean /s/ David Sykes /s/

RECOMMENDED ACTION:

1) Award the construction contract for the San José/Santa Clara Water Pollution Control Plant, Filter Under-Drain System Renovation and Media Replacement (A-4) Project to the sole bidder, ERS Industrial Services, Inc., in the amount of $519,118.72.
2) Approve a contingency in the amount of $51,900.

BASIS FOR RECOMMENDATION:

This is a pilot project that includes, the installation of a modular filter under-drain system, an air scour cleaning system, and the replacement of existing filter media with a different type of media at one of the existing tanks of the filtration building. This building was constructed in 1978 with 16 gravity drain filters with each tank consisting of layers of anthracite, gravel and sand on top of under-drain perforated blocks. This pilot study project will evaluate the modified filter for the reduction of filter media loss, improvements to the tertiary treatment effluent, extended filter run times, and energy savings. These improvements will result in reduction of costs associated with filter media replacement and energy use by the backwash pumps as well as an increase in the volume of the treated water per filter cycle which reduces in-plant recycle flows.

The Plant Process Engineering staff along with personnel from Maintenance, Instrumentation, and Operations will be involved in the pilot monitoring activities for a period of six months. If this project is successful, the under-drain and the media system may be sole sourced for a future project that will replace the gravel under-drain and filter media system for at least seven other filter beds.

Bids for the project were opened on April 7, 2011 and ERS Industrial Services, Inc. (ERS) submitted the only bid proposal in the amount of $519,118.72. The limited number of bids may be due to the specialized nature of this work and the pre-qualification requirements that were included as part of the bid solicitation. Bidders were required to have completed a minimum of five similar projects within the last ten years. A total of four prospective bidders attended the pre-bid conference but most concluded they did not have the experience required to deliver the project. The bid submitted by ERS is 22% above the engineer's estimate which is primarily due to a recent rise in prices for stainless steel and transportation costs. The bid amount is considered acceptable for the work involved in this project The 10% contingency is appropriate for this project.

COST AND FUNDING SOURCE:

1.	AMOUNT OF RECOMMENDATION/COST OF PROJECT:	$519,118.72
2.	COST OF PROJECT:	
	Project Delivery	$130,000.00
	Construction	519,118.72
	Contingency	51,900.00
	City-furnished Material	10,000.00
	TOTAL PROJECT COSTS	**$711,018.72**

3. SOURCE OF FUNDING: 512 – San Jose-Santa Clara Treatment Plant Capital Fund, Appropriation 5690, RC 163625
4. FISCAL IMPACT: Existing funds are available for this project. No additional appropriation action is required.

FOR QUESTIONS CONTACT: Michael O'Connell, Acting Deputy Director, Public Works at (408) 535-8300 or Bhavani Yerrapotu, Division Manager, Environmental Services at (408) 945-5321.

COUNCIL AGENDA: 05-24-11
ITEM:

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: John Stufflebean
David Sykes

SUBJECT: SEE BELOW

DATE: 05-06-11

Approved

Date 5/9/11

COUNCIL DISTRICT: City-Wide

SUBJECT: REPORT ON BIDS AND AWARD OF CONTRACT FOR THE SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT, NEW CONSTRUCTION OF VARIOUS EQUIPMENT FY 2010-2011 PROJECT

RECOMMENDATION

Report on bids and award of construction contract for New Construction of Various Equipment 2010-2011 project to the low bidder, Anderson Pacific Engineering Construction, Inc., in the amount of $1,299,300, and approval of a 15 percent contingency in the amount of $200,700.

OUTCOME

Award of this construction contract will enable the construction, replacement and repair of critical infrastructure at the San José/Santa Clara Water Pollution Control Plant. Approval of a 15 percent contingency will provide funding for any unanticipated work necessary for the proper completion of this project.

BACKGROUND

The San José/Santa Clara Water Pollution Control Plant (Plant) has an extensive and aging infrastructure. Emergency replacement and repairs of equipment, implementation of pilot projects, and unscheduled repair and rehabilitation of the existing infrastructure are required throughout the year. The increasing frequency of these projects, coupled with the narrow shutdown window required for various systems, has generated the demand for one contract that will enable the City to obtain construction services on an as-needed basis.

The proposed project is for miscellaneous new installation and replacement of various equipment at the Plant. The work to be performed under this contract consists of furnishing of all labor, tools, materials, equipment and appurtenances, as required to provide emergency and non-emergency new construction and pilot projects. The list of projects includes, but is not limited

to, extension of the Plant recycled water line to the new headworks, replacement of the existing progressive cavity pumps with peristaltic pumps at various locations at the Plant, a pilot project involving the Secondary process which will install various electronic analyzers for measuring ammonia and total suspended solids, and installation of a submersible centrifugal pump for draining the 108-inch recycled water diversion line.

In order to allow for competitive bids, a simulated project was developed to best illustrate the scope of work to be performed. The estimated quantities of specific labor, material and equipment are based on historical analysis and include labor, material and equipment that can be reasonably expected to be necessary during the year. The prospective bidders submitted unit costs for a series of items with typical quantities and the results were tabulated for comparisons of each bidder's total bid proposal. The lowest responsive bidder on the total of these items is recommended for award of the contract.

ANALYSIS

This project opened bids on April 7, 2011 with the following results:

Contractor	Bid Amount	Variance Amount	Over/(Under) Percent
Rodan Builders, Inc. (Burlingame)	$2,136,300	$636,300	42
Engineer's Estimate	**1,500,000**	--	--
Anderson Pacific Engineering (Santa Clara)	1,299,300	(200,700)	(13)

Because of the specialty nature of the work involved, this project required all bidders to have a minimum of 3 projects valued at least $100,000 each within the last 5 years in a wastewater treatment facility. Additionally, the schedule of quantities includes hourly rates for various different trades that are not commonly employed by the same contractor and hourly rates for various equipment items that are not commonly owned by the same contractor. In today's competitive bidding environment only those contractors who employ multiple trades and own various different types of equipment items can put together a competitive bid price. Staff believes these are the most likely reasons there were only two bids received for this project.

The low bid submitted by Anderson Pacific Engineering Construction, Inc. is 13 percent below the Engineer's Estimate. The bid is considered acceptable for the work involved in the project. The lower than estimated bid can be attributed to a competitive bidding environment.

EVALUATION AND FOLLOW-UP

The project is currently within budget with a projected completion date of April 2012. No additional follow up actions with the Council are expected at this time.

POLICY ALTERNATIVES

Alternative # 1: Reject bid and drop the project.
Pros: Ability to fund other capital projects.
Cons: All work will have to be done by limited in-house staff which will result in additional costs and delay in repairs and rehabilitation of critical infrastructure and equipment. In addition, pilot projects will not be implemented quickly, resulting in delay of design of capital projects.
Reason for not recommending: Delay in repairs and rehabilitation of critical infrastructure and equipment increases the risk of permit violations and exposes the City to potential regulatory actions.

PUBLIC OUTREACH/INTEREST

✓ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This item meets Criterion 1: Requires Council action on the use of public funds equal to $1 million or greater. To solicit contractors this project was listed on the City's Internet Bid Hotline, the *San José Post Record*, and various builders' exchanges in the Bay Area. This memorandum will be posted on the City's website for the May 24, 2011 Council agenda.

COORDINATION

This project and memorandum have been coordinated with the Office of Risk Management, City Manager's Budget Office, and the City Attorney's Office. This item is scheduled to be heard at the May 19, 2011 Treatment Plant Advisory Committee meeting.

FISCAL/POLICY ALIGNMENT

This project is consistent with the Council approved Budget Strategy to focus on rehabilitating aging Plant infrastructure, improve efficiency, and reduce operating costs. This project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION/COST OF PROJECT: $1,299,300

Project Delivery	$250,000
Construction	1,299,300
Contingency	200,700
TOTAL PROJECT COSTS	**$1,750,000**

2. SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund.

3. OPERATING COSTS: The proposed operating and maintenance costs of this project have been reviewed and will have no significant impact on the Plant operating budget.

BUDGET REFERENCE

The table below identifies the fund and appropriations proposed to fund the contract(s) recommended as part of this memo and remaining project costs, including project delivery, construction, and contingency costs.

Fund #	Appn #	Appn. Name	RC #	Total Appn	Amount of Contract	Adopted Budget (Page)	Last Budget Action (Date, Ord. No.)
Remaining Project Costs				**$1,750,000**	**$1,299,300**		
Current Funding Available							
512	4332	Equipment Replacement	038685	$4,136,000	$1,000,000	V-175	06/29/2010 Ord. #28765
512	5690	Plant Infrastructure Improvements	042853	$10,045,000	$299,300	V-176	06/29/2010 Ord. #28765
Total Current Funding Available				**$1,750,000**	**$1,299,300**		

CEQA

Exempt, PP08-202

/s/
DAVID SYKES
Acting Director, Public Works

/s/
JOHN STUFFLEBEAN
Director, Environmental Services

For questions please call Jon Newby, Division Manager, Mechanical and Maintenance Division, Environmental Services Dept., at (408) 945-5160.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

COUNCIL AGENDA: 05-24-11
ITEM:

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: John Stufflebean
David Sykes

SUBJECT: **SEE BELOW**

DATE: 05-02-11

Approved

Date 5/9/11

COUNCIL DISTRICT: City-Wide

SUBJECT: CONTRACT CHANGE ORDER NO. 6 FOR THE "SWITCHGEARS M1, M2 & M3 REPLACEMENT DESIGN-BUILD PROJECT" AT THE SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT

RECOMMENDATION

Adopt a resolution authorizing the Director of Environmental Services or his designee to negotiate and execute Contract Change Order No. 6 to install new remote control, relay protection and monitoring equipment as part of the Switchgears M1, M2 & M3 Replacement Design-Build Project in an amount not to exceed $400,000.

OUTCOME

Approval of this recommendation will allow the Director of Environmental Services to negotiate and execute Contract Change Order No. 6 with the project contractor, Rosendin Electric, to provide the materials and labor for installing new remote control, relay protection and monitoring equipment for the existing 115KV Substation equipment in the new 115KV Relay Building that is being built as part of this project. This change order is not expected to add any additional time to the Contract.

BACKGROUND

In May 2010, City Council approved the award of the Switchgears M1, M2 & M3 Replacement Design-Build Project to Rosendin Electric, Inc., in the amount of $8,386,978 and established a contingency of 15% in the amount of $1,258,047. The project includes removal and replacement of the existing switchgear M3, installation of the 115KV Relay Building and installation of associated interconnecting cables.

The remote control, relay protection and monitoring equipment that the proposed change order would add replaces equipment currently located inside the existing switchgear M3. Because the existing switchgear M3 is being removed and replaced, the existing remote control, relay

protection and monitoring equipment located inside switchgear M3 also needs to be replaced. The project scope has always been to put the new remote control, relay protection and monitoring equipment in the new 115KV Relay Building that is being installed as part of the project.

Although the replacement of switchgear M3 necessitated the installation of new remote control, relay protection and monitoring equipment, staff initially decided not to include this in the project. Staff made this decision because at the time the City awarded the contract for the project, staff was unable to verify the existing equipment. Additionally, the design of these elements is very equipment/manufacturer specific. Due to the safety and reliability implications of an inappropriately designed relay protection system, City staff decided that it was more prudent to wait until it could verify the existing equipment before proceeding with the design of the new equipment. Staff planned on purchasing the new equipment separately and installing it using City electrical maintenance staff familiar with the existing 115KV Substation equipment and its integration into the Plant distribution system.

ANALYSIS

Over the last few months, staff completed verifying as-built conditions and reviewed and approved the contractor submittals of the switchgear equipment. Staff has also completed the detailed design of the new remote controls, relay protections and monitoring equipment. Staff has since re-evaluated the original plan of procuring the equipment and installing it using City forces. Staff now has determined that this work is best performed by the contractor as part of the current project. The reasons for this determination include the following:

- The scope of work related to the installation of new remote controls, relay protection and monitoring equipment is much larger than originally anticipated, thus requiring extensive resources above and beyond those possessed by the City's typical electrical maintenance staff.

- Over the last several months, the Plant has sustained a significant loss of experienced staff due to retirements and departures resulting in a significant reduction of filled positions available for day-to-day operations. At current staffing levels, there is now a lack of capacity to perform the work using City staff.

- Over the last five years, Rosendin Electric has successfully installed a number of electrical switchgears and motor control centers at the Plant. Rosendin Electric is also very familiar with the Plant's electrical system.

The cost of Contract Change Order No. 6 would include materials and labor to install the new remote control, relay protection and monitoring equipment for the existing 115KV equipment. It is anticipated that the cost of this work would not exceed $400,000.

The total approved contingency for this project is $1,258,047. The project is currently at 60% completion with an available contingency balance of $968,637. Therefore it is anticipated that the cost of this change order will be within the limits of the existing contingency and no additional fund adjustment is required. This change order work is not expected to add any additional time to the Contract.

EVALUATION AND FOLLOW-UP

The project is currently within budget with a projected completion date of December 2012. No other follow-up action with the Council is expected at this time. Should start-up or testing conditions warrant additional change orders to be executed that require Council action, staff will bring forth those recommendations at that time.

POLICY ALTERNATIVES

Alternative # 1: Not authorize the director to negotiate and execute Change Order No. 6, and have the City purchase and install the new equipment using City staff.
Pros: Potential cost savings as City staff labor costs would likely be lower than the contractor's costs and no need to develop detailed plans and specifications for contractor installation.
Cons: Questions regarding whether City staff has the expertise to install the new equipment given that the installation is much larger than originally anticipated. Negative impacts of diverting limited staffing resources from current electrical maintenance activities.
Reason for not recommending: Scope of work for the installation of the new equipment became much larger than originally anticipated. The City does not have the resources to perform the work in-house. The new work can be performed more efficiently and effectively by the contractor.

***Alternative #2*:** Not authorize the director to negotiate and execute Change Order No. 6, and bid this new work out as a separate construction project.
Pros: Possibility of lower construction costs as a result of competitive bidding process.
Cons: Overall project cost would almost certainly be higher because this approach would require Rosendin Electric to stop work, demobilize and then remobilize once the other contractor had completed its work. There would also be an issue of coordinating the work of two contractors. The current project also might take longer, which might result in additional project costs. Separate sets of plans and specification documents will have to be developed for bid and must go through a separate bidding process, which will require additional staff time and costs associated with the bidding process.
Reasons for not Recommending: Entering into a change order with the current contractor provides a much more efficient and effective way to perform the additional work.

PUBLIC OUTREACH / INTEREST

☐ **Criterion 1:** Requires Council action on the use of public funds equal to $1 million or greater; **(Required: Website Posting)**

☐ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

☐ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This action does not meet any of the above criteria. This memorandum will be posted on the City's website for the May 24, 2011 Council Agenda.

COORDINATION

This project and memorandum have been coordinated with the City Manager's Budget Office and the City Attorney's Office. This item is scheduled to be heard at the May 19, 2011, Treatment Plant Advisory Committee (TPAC) meeting.

COST SUMMARY/IMPLICATIONS

This action requires no additional funding. The $400,000 required for this change order is covered by the contingency approved by Council on May 24, 2010. These funds are encumbered and available for this purpose in the San José-Santa Clara Treatment Plant Capital Fund, Plant Electrical Reliability appropriation.

CEQA

Exempt, PP04-03-079

/s/
DAVID SYKES
Acting Director, Public Works

/s/
JOHN STUFFLEBEAN
Director, Environmental Services

For questions please contact Bhavani Yerrapotu, Technical Services Division Manager, at 408.945-5321, or Michael O'Connell, Acting Deputy Director of Public Works, at 408.535-8300.

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: John Stufflebean
David Sykes

SUBJECT: SEE BELOW

DATE: 05-13-11

Approved [signature] Date 5/13/11

COUNCIL DISTRICT: Citywide

SUBJECT: SAN JOSE/SANTA CLARA WATER POLLUTION CONTROL PLANT (PLANT) – ODOR STATUS AND BIOSOLIDS PROCESS TRANSITION TIMING

RECOMMENDATION

1. Accept the Plant's odor assessment status report and direct staff to continue with the development of a regional odor assessment study and deliver a status report in fall 2011.

2. Accept the analysis of the feasibility of implementing odor control projects in three to seven years and direct staff to continue to explore the possibility of accelerating biosolids projects and deliver a status report in fall 2011.

OUTCOME

Acceptance of the recommendations will result in staff: 1) Continuing to develop a scope of work and budget for a regional odor assessment study; and 2) Continuing analysis of the implementation timeline of the biosolids transition after completion of the Plant Master Plan Environmental Impact Report (EIR).

EXECUTIVE SUMMARY

The Preferred Alternative for the Plant Master Plan was approved by Council on April 19, 2011. The Preferred Alternative includes process changes that will reduce odors and shrink the Plant's footprint, thereby enabling new land uses along the South San Francisco Bay shoreline. Council directed staff to return in May 2011 with additional information on reducing odors from the Plant and an analysis of the feasibility to implement the transition to a new biosolids process in three to seven years.

Staff has been working with other facilities in the vicinity of the Plant to develop a comprehensive odor study that would provide a better understanding of the full extent of how nearby communities are currently affected by odors and will continue to coordinate with stakeholders on the development of this study.

Staff performed a preliminary analysis of all the elements associated with a transition to a new technology for processing biosolids which consists of environmental clearance, site preparation, project development and delivery and cleaning up of the existing lagoons and drying beds. Due process requirements associated with some of these elements appear to be rigid and incompressible. Alternative delivery options such as design/build and design/build/operate could allow for some schedule compression along with some cost and risk implications. Staff will continue to explore these options and work with interested stakeholders in further analyzing options to accelerate the timeline and come back to Council in fall 2011 with a status update.

BACKGROUND

On April 19, 2011, the Council approved the Preferred Alternative for the San Jose/Santa Clara Water Pollution Control Plant Master Plan (Plant Master Plan). Council directed staff to return in May 2011 with additional information to address stakeholder concerns regarding the odors that may be generated by the Plant as well as an analysis of the "feasibility of implementing odor mitigation work in three to seven years" (April 19, 2011 Memo from Mayor Reed, Vice Mayor Nguyen, and Council members Chu, Rocha, and Liccardo).

In addition, at the December 14, 2010, Council meeting, staff was directed by Council to "prioritize the identification of sources and potential solutions for elimination of odors coming from the Plant and present options for the elimination of odors, with timelines and cost estimates to do so." The April 19, 2011 staff report included estimated costs and timelines for elimination of identified odors in the future. This report provides additional information regarding odors and a planned regional odor assessment study that would include the Plant as well as other potential odor sources in the region.

Current Odor Control Activities

The Plant has been identified as an odor source in only one confirmed odor complaint registered with the Bay Area Air Quality Management District (BAAQMD) database over the last five years. This is a result of ongoing staff operating procedures aimed at reducing offsite odors as much as possible. These odor reduction efforts were recognized in the 2008 Milpitas Odor Control Action Plan.

The odor control practices implemented at the Plant include:

- Adding hydrogen peroxide at several locations in the liquids treatment process;
- Construction and commissioning of a new headworks which utilizes covered grit chambers instead of the aerated open tank grit chambers that are part of the existing headworks;

- Implementing best management practices for the operation of the drying beds; and
- Implementing best management practices for the final truck loading and hauling of dried biosolids to the neighboring Newby Island landfill in the fall, including discontinuing the practice of biosolids stockpiling, limiting biosolids hauling to morning hours during low wind conditions, and monitoring weather conditions.

The Plant is part of BAAQMD's rapid notification system and immediately follows up on any odor complaints that may be attributable to its operations. The services provided by Republic Services at Newby Island Landfill are also part of the BAAQMD's rapid notification system. Republic Services has informed staff that they also work to minimize off-site odors and have implemented programs beyond current best management practices.

ANALYSIS

The mission of the Plant is to treat the wastewater of 1.4 million residents to protect our health, Bay, and economy. One vital element of this mission is to maintain the quality of life for the Plant's immediate neighboring communities in San José and Milpitas by minimizing odor, noise, and traffic impacts. The Plant Master Plan Preferred Alternative includes the following objectives related to odor reduction and biosolids:

- Maximize the long-range efficient use of the Plant's existing facilities and reduce the footprint of the existing biosolids treatment area.
- Maintain cost-effective Plant operations and competitive sewer rates through enhanced operations, flexibility, and rigorous evaluation of new technologies.
- Reduce visual, noise, and odor impacts from Plant operations to neighboring land uses to the extent practicable.
- Promote additional resource recovery from Plant operations by supporting recycled water production, increasing biogas production, and diversifying biosolids reuse options.
- Pursue energy self sufficiency and reduced greenhouse gas emissions by promoting renewable energy generation, increased energy efficiency, and enclosed biosolids processing.

These objectives have guided the development of the Preferred Alternative accepted by Council on April 19, 2011, and the proposed approach to long-range odor and biosolids capital improvements.

A Regional Odor Assessment Study Would Enable Sound Decision Making

Following the discussion at the Treatment Plant Advisory Committee (TPAC) Special Study session on November 19, 2010, and direction given by Council on December 14, 2010, staff and Carollo Engineers (the Plant Master Plan consultant) further investigated possible sources of odor near the Plant. The following sites were visited: Republic Services facilities at Newby Island; the Zanker Road Landfill and Zanker Material Processing Facility; the Milpitas Raw Sewage Pump Station; the San José sanitary sewer collection system junction boxes along

Zanker Road; and the Bay itself. The site visits confirmed that there are multiple odor sources in the area.

A comprehensive odor study would provide a better understanding of the full extent of how nearby communities are currently affected by odors. Newby Island and the Plant would be analyzed in greater detail; however, all potential odor sources would be included. All of the organizations that manage these potential odor sources have agreed in principle to be part of a regional study.

The odor study would also provide needed information for the Plant to help refine the appropriate level of investment associated with the implementation of odor control technologies for specific areas of the Plant. As part of the Plant Master Plan effort, Carollo Engineers performed a preliminary analysis of likely odor sources at the Plant that could result in off-site odors and identified possible odor control improvements for several process areas. The capital projects that would be needed to address potential odor sources at the Plant are included in the Plant Master Plan Preferred Alternative. These consist of around $70 million of capital investment to cover and treat captured air from the headworks, primary, and thickening processes. Data from the odor study could be used to help size this equipment appropriately if these projects are approved. The approximately $230 million biosolids transition proposed as a part of the Plant Master Plan Preferred Alternative also is anticipated to reduce the Plant's potential off-site odors. The proposed timeline of this transition will be discussed later in this report. Data provided by an odor control study would ensure that any investments in odor control systems, such as the elimination of open-air biosolids drying beds, will result in odor reductions for the area. However, without a regional commitment to odor control from all potential regional odor sources, the Plant's odor control improvements may not noticeably reduce the overall odors experienced in the neighboring communities.

A regional study would include nearby facilities - Republic Services facilities at Newby Island, the Zanker Road Landfill and Zanker Material Processing Facility, the Milpitas Raw Sewage Pump Station, and the San José sanitary sewer collection system - to establish a one-year regional odor assessment program to better understand the current status of generation and distribution of odors in the surrounding communities. The assessment would more clearly identify how and where odor generation occurs; what the nature and properties of odors are; and what type of odor sources currently may present issues in commercial and residential communities near the Plant.

A scope is being developed for consultant support for this proposed assessment, which would include

- The development and management of a stakeholder process with the participating facilities to obtain consensus on the objectives and scope of the study.
- The development of a methodology for air sampling and monitoring, field measurements, data analysis, and air dispersion modeling.

- Air sample collection and analysis at an estimated 30 process areas/sources at the Plant and the other potential odor generating sites in the area with multiple sampling points at some sources that cover a large area (e.g. biosolids drying beds).
- Sampling during the dry season and wet season to account for weather impacts on odor generation and dispersion.
- Laboratory analysis of over 350 samples collected at special labs that analyze odor samples.
- Data analysis and modeling for potential impacts of the odor on surrounding communities.

Preliminary estimates and cost information received suggests this study could cost up to $1 million, depending on the number of sites, sampling methodology, laboratory costs, and modeling effort. It is expected to take one year to complete this study.

As staff is developing the scope for this effort, it has become evident that further coordination among stakeholders, including Milpitas and the nearby facilities, is needed for the development of the study. Given that the proposed study is regional in nature and attempts to account for the implications of the odor from multiple sources in close proximity, staff would need to pursue funding from sources other than the Sewer Service and Use Charge (SSUC) for a portion of the study, develop a memorandum of understanding with the study participants, and engage consultant services to perform the study. In fall 2011, staff will update Council on the progress of odor study development and the stakeholder process.

Biosolids Transition – Feasibility of implementing biosolids projects in three to seven years

The approved Plant Master Plan Preferred Alternative includes a proposal to use a new, enclosed mechanical dewatering and greenhouse drying processes that is anticipated to minimize odors, and result in a smaller footprint of approximately 160 acres, rather than the current open-air lagoons and drying beds. The new process was included in the Preferred Alternative to help prepare the Plant for future greenhouse gas regulations, landfill closure, and possible diversification of biosolids disposal and reuse opportunities, in addition to the odor minimization benefits.

Staff had performed an analysis of a temporary contract dewatering option to eliminate the need for lagoons and drying beds 12 years sooner while constructing permanent facilities. As presented in the update to the Transportation and Environment Committee on December 6, 2010, this option would increase expenditures by $178 million to 2025. For San Jose, this would mean an 8 percent one-time rate increase. Further, the contract dewatering option would require California Environmental Quality Act (CEQA) clearance and possibly site preparation as well.

The current proposed approach for the construction and implementation of the biosolids transition utilizes a traditional *design, bid, build* process, which includes smaller scale field testing to better ensure that the capital investment is successful, reliable, and results in optimized future operating costs. Some stakeholders are concerned with the proposed timeline of phasing out the drying

beds and lagoons by 2025 and requested a shorter timeline. Staff reviewed the proposed timeline for the biosolids transition and found that this process could be completed about four years sooner by limiting the extent of pilot testing. However, a limited pilot testing effort will increase the risk of potential failure or may yield a less cost efficient and potentially poorly performing biosolids treatment process.

McCarthy Ranch representatives, a neighboring stakeholder also represented on the Community Advisory Group, has suggested that the biosolids transition could be completed even faster. Presented to TPAC in November 2010, the analysis provided by a consultant for McCarthy Ranch did not include sufficient data to compare the assumptions to the thorough analysis completed by the Plant Master Plan consultant team (Carollo Engineers et al). The McCarthy Ranch consultant's report relied on limited information from a small set of vendors contacted for pricing and did not consider all the implementation issues for a facility of this size, including the required environmental analysis. Staff will continue to work with McCarthy Ranch and other interested stakeholders on opportunities to accelerate a timeline during the development of the odor study.

As described in the staff report on April 19, 2011, the magnitude and complexity of a transition to a new biosolids process for the Plant that treats the wastewater of 1.4 million people would make this effort one of the largest in the country. As noted earlier, a phased approach to implementation is anticipated to include pilot testing of potential processes to ensure that the significant investment will be successful and the performance and reliability are optimized. Each treatment plant's solids are unique and processes must be chosen and fine-tuned to ensure successful operation and optimized to minimize operational expenses. In addition, this approach would allow the Plant to take advantage of emerging and green technologies, such as gasification for ultimate re-use and disposal, currently being analyzed in collaboration with Harvest Power and the California Energy Commission (CEC).

The following is staff and consultant analysis on the "feasibility of implementing odor mitigation in three to seven years" if a Plant Master Plan is approved, as requested by Council members on April 19, 2011.

Timeline Considerations

Several elements of the implementation appear to be rigid in their schedule:

- *EIR process:* The EIR development is projected to take about two years, assuming there is no legal challenge that could delay completion. Moving from over 500 acres of open air drying to an enclosed, more energy-intensive process will generate environmental impacts that must be analyzed along with the other elements of the Plant Master Plan Preferred Alternative. Other recent wastewater treatment plant EIRs have been challenged. The projects to reduce odors and eliminate the open-air drying beds will be analyzed at the project-level of detail in the Plant Master Plan EIR to allow implementation once the EIR is complete and if it is certified and a Plant Master Plan ultimately approved.

- *Site Preparation:* The site identified as part of the Preferred Alternative for the location of the future biosolids facilities, currently holds "legacy biosolids" which contain elevated levels of select heavy metals, which are generally within screening values for commercial/industrial land use, but potentially could also be designated as a California hazardous waste. A plan is being currently developed to address these biosolids and prepare the site for future use. If the Plant Master Plan EIR is completed and certified by the City, this site preparation may require 1.5 to 3 years because of the nature of the material, special handling, permitting, and regulatory oversight which will be required to remove the materials.
- *Lagoon/Drying bed clean-up:* If a new biosolids process is put in place, it will take up to three years to process the stored material and perform a final cleanup of the existing lagoons. Currently, after thickening and digestion, solids are stabilized for two years in lagoons and then dried for one year in drying beds. At the time new facilities are anticipated to come on line, the existing lagoons would still have two years worth of biosolids and the drying beds would have one year's worth of biosolids that will still need to be processed. It is envisioned that the last round of processing for these stored materials could be performed while any newly built facilities begin to process incoming biosolids. Various options can be considered, including using the new biosolids process standby facilities, following the old process, or using a contractor. There do not appear to be significant time savings from these options.

Alternative Delivery Options Analysis

The currently proposed project delivery program is structured around the traditional design, bid and build approach. Staff performed further preliminary analysis of alternative delivery options to determine which option could result in the most accelerated timeline for a biosolids transition. Options that were evaluated include:

- *design-build* (D/B)
- *design-build-operate* (D/B/O)

The D/B and D/B/O options may reduce the time required to implement a biosolids transition. This is because there is typically less engineering detail in the upfront design prior to transitioning into a construction phase of a project. Since preliminary engineering is more conceptual, a detailed design proceeds in parallel with an initial construction effort and may be able to adapt to changing conditions. A D/B/O contract could be entered into only after an EIR is completed and has been certified, while a design/bid/build option can begin design-at-risk while an EIR is being prepared. D/B/O, particularly the operations portion, would also require additional analysis subject to Council Policy 0-41, "Service Delivery Evaluation" and Council Policy 0-29 "Public Private Competition Policy". These policies require the preparation of business case analysis to evaluate the full cost implications of the transition to this alternative service delivery option and impact to current city staff operating the biosoilds process. To expedite a D/B/O option, a contract could be explored to allow for only site planning and design to begin during an EIR preparation phase and then an option to be exercised for a final contracting phase once an EIR is complete and can inform this process. A figure has been

attached (Attachment A) entitled "Transition to New Dewatering and Drying," which presents staff's preliminary analysis of a potential implementation schedule for a D/B and D/B/O project delivery approach. Because of the schedule constraints noted earlier for completion of the CEQA process and the need to remove the legacy storage area, no schedule advantage appears to be provided by proceeding with the D/B or D/B/O approach, however, staff will continue to explore these options and work with interested stakeholders in further analyzing alternative delivery options.

Potential Benefits
The following potential benefits are associated with implementation of alternative delivery options and a possible accelerated implementation of the new biosolids processing technology.

- *Stimulate construction industry:* An accelerated implementation of the biosolids project could result in additional construction jobs in this area, supporting the construction industry and the local job growth, in the current climate of high unemployment.
- *Increase Management Efficiency:* A designer and contractor are hired and managed together via one contract for the City selected based upon price. D/B and D/B/O options provide greater and earlier cost certainty.
- *Potential for Decrease of Capital Costs:* In general, acceleration of a capital project may result in potential decrease of capital costs by reducing the span of escalation of costs of construction labor and materials (assumed to be a modest two percent per year), for each year that the project can be accelerated.
- *Lower Management Risk:* A D/B/O provider takes on design risk with significant synergies between design and construction. Continued operations and maintenance services act like extended warranties for the D/B/O option. The D/B/O option usually transfers life cycle costing risk to a third party, causing short and long-term trade-offs of capital versus maintenance.
- *Induce Innovation and Creativity within Scope:* D/B and D/B/O options usually invite some private innovation and creativity within the contracted scope, compared to the traditional design/bid/build approach and may result in cost savings, within the framework of a project.
- *Potential for reduced City staff:* While the City has less control over project design, construction and operation under this option, less administrative resources during design and construction are required. In a D/B/O option, project design and construction proceeds as with the D/B option, but the operations of facilities is performed by a private party and not by City staff. Responsibility for a facility and treatment performance can be placed on a D/B/O team.

Potential Risk Factors
The following potential risks must be considered when accelerating a biosolids transition:

- *Increase future operating costs:* If a new biosolids process is implemented, the annual operating costs will increase significantly, particularly due to additional energy and chemical consumption by up to $10 million. Accelerating the process will accelerate the

timeline for this cost and rate increase, while also increasing the risk that the most cost effective options are not evaluated or considered.

- *Result in Potential Loss of Reliability:* Accelerating the schedule does not allow for technologies to be pilot tested before they are adopted into the design. Pilot testing would ensure that any significant investment is successful, reliable, and able to meet current and future regulatory requirements.
- *Need for Compliance with Private Activity Restrictions:* D/B/O operating proposal would also have to be evaluated for compliance with private activity restrictions at the Plant, that are required to maintain the tax exempt status of outstanding sewer revenue bonds and the ability to issue future tax exempt debt.
- *Loss of integrated solution/technology opportunities:* While alternative delivery options can lead to technology innovation within a contracted project, a design/bid/build approach allows the City to take advantage of opportunities outside of such a scope, such as gasification (Harvest Power pilot) as a disposal option for the biosolids. The alternative delivery options may limit the use of possible future green energy sources such as waste heat from the nearby Calpine Plant.
- *Challenges meeting environmental goals/greenhouse gas emissions:* Biosolids processing in the recent years has become an evolving field with respect to technology innovations due to the significant energy implications of this process in both the energy required to process biosolids as well as the potential for capturing energy from the organics in biosolids. The fastest transition timeline would likely require adopting existing off-the-shelf higher energy technologies with higher greenhouse gas impacts. City policy is to reduce greenhouse gas emissions from municipal facilities. Additional time constraints make it more difficult to attain this goal.

As discussed, the alternative delivery approaches have risks and benefits, which will be explored further in the future, including working with our stakeholders.

Program needs to ensure delivery by 2021

In the coming months staff will develop detailed implementation plans and resource and staffing strategies in case this roughly $300 million program is ultimately approved. Several aspects of this program require unique expertise and dedicated staffing to implement.

a. Site preparation and dealing with the legacy biosolids would require significant effort and unique experience in biosolids management, environmental remediation, and compliance, and, negotiations with regulatory agencies; environmental engineering expertise for the oversight of the either on-site management or disposal and hauling of the biosolids would also be required.
b. Current biosolids are disposed of at the Newby Island Landfill as alternative daily cover. Mechanical dewatering and drying would produce a biosolids product that will be different from our current product which currently produces a fairly dry product (20% water content vs. the 75% water content from the mechanical dewatering operation). Hence new disposal options may need to be explored along with a procurement process to enter into long term contracts for hauling and

disposal. The staff-recommended 2025 date coincides with Newby Island expected closure (if the landfill's permit extension is approved).

c. Design and construction management of a facility involving complex mechanical equipment, likely including the permitting and construction of a new electrical substation, new utility water supply, site improvements, and side stream management considerations, would require unique expertise. In addition, significant coordination and integration of ongoing operations would be required as the project progresses. As mentioned earlier in this memo, this biosolids facility project would be one of the largest of its kind in the nation if approved.

Staff must focus on delivering a capital improvement program that ensures the continued operation of the Plant without failure. If approved as part of the Plant Master Plan Preferred Alternative, the biosolids transition will require significant staff and consultant resources to be committed. Accelerating a proposed project deadline to 2021 exacerbates the potential costs and staff requirements. Current Capital Improvement Program delivery has been challenged with adequate resource provision, hiring timelines and procurement timelines. This project would require alignment of all supporting departments to ensure that adequate resources are available. Some of the internal process streamlining and resource dedication that would be needed includes:

- City Attorney resources to the Plant capital program
- Budget, fiscal, human resource, and accounting staff to support the program
- Capital Program Management System (CPMS) support
- Contract management and procurement support
- Experienced Plant operations and maintenance staff dedicated to this project
- Ability to hire temporary/contract employees with the necessary expertise to act as the owners agents/program managers
- Engineering specialties with the necessary expertise to review and ensure quality control for the program
- Process control staff with the necessary expertise to be hired to support the technology change
- Exemptions to certain city policies, where required and justified, such as the sole source procurement, competitive selection of consulting services, revolving door policy, etc.

Next Steps
Based on these preliminary benefits, risk factors, and other challenges associated with the current staffing and resource limitations at the Plant, staff will continue to work with the consultant team, other City departments and the neighboring stakeholders to further explore alternative delivery options that could result in the quickest feasible implementation of the biosolids transition if it is approved by Council.

An analysis of accelerated timing will be included in the biosolids preferred alternative analysis in the Plant Master Plan EIR to preserve the option of a faster implementation timeline should there be an opportunity.

Land Use Implications

An earlier biosolids transition would free up the land sooner, however, it appears unlikely that additional revenues could be realized. A Plant Master Plan sub consultant, Bay Area Economics (BAE), performed the economic analysis for the land use portion of the Preferred Alternative. The analysis assumes that development would begin in 2015 along State Route (SR) 237 corridor as a first phase due to its proximity to existing development and utilities. This timing would allow for the EIR to be completed and approved by the City and entitlements and infrastructure to be developed. While the site is close to existing utilities, it is not currently served by utilities and would require significant improvements, which would need to be funded using sources other than Plant funds. BAE's revenue projections are very conservative and assume that these improvements would be developer-funded, resulting in low revenue estimates. Potential revenues could be increased through other financing mechanisms, which will be explored.

The land uses along SR 237 suitable for economic development in the Preferred Alternative include retail uses, office research and development, light industrial for Clean Tech industries, and the conceptual Clean Tech institute. This area also includes a proposed 40-acre regional park. Robust real estate markets are unlikely to result in "full development" of these SR 237 land uses by 2025. Therefore, unless market demand increases substantially to require more land than available along SR 237 within that timeframe, there are no significant additional economic and employment benefits from accelerating the biosolids transition. The costs for the biosolids transition to a mechanical process are substantial and if completed, would increase operating costs by as much as $10 million per year, due to increased energy, chemical and disposal costs.

An increase in property value to surrounding lands outside of the Plant property could occur as a result of a transition to a covered mechanical biosolids dewatering and drying process based on both the real and perceived elimination of a low value land use. To analyze these potential economic benefits to the region would require funds from other sources than Plant operating or capital funds.

EVALUATION AND FOLLOW-UP

The status report on the odor analysis and timeline considerations for a biosolids transition will be presented to TPAC and Council in the fall of 2011. The T&E committee will receive regular updates.

PUBLIC OUTREACH/INTEREST

❑ **Criterion 1**: Requires Council action on the use of public funds equal to $1 million or greater. **(Required: Website Posting)**

❑ **Criterion 2:** Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. **(Required: E-mail and Website Posting)**

❑ **Criterion 3:** Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. **(Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)**

This memo does not meet the criteria above. Direct engagement with the public and the Plant's many stakeholder groups has been an essential component to developing the Draft Plant Master Plan over the past three years. The communications strategy for the Plant Master Plan was developed by City staff with input from the Plant Master Plan Steering Committee, and implemented using a variety of media, advertising, and community engagement tactics. The tributary-wide Public Outreach Working Group, composed of staff from the cities and sanitation districts, has been providing input on the public outreach plan since December 2007. The Community Advisory Group will have met 20 times, and three public input opportunities were provided in May 2009, May 2010 and January 2011. When staff presented questions to the public at community meetings on the speed to both better treat odors at the Plant and change the biosolids dewatering and drying process, the public has consistently responded by saying that the Plant should begin the development of these processes but make sure not to overburden ratepayers. These results can be found in the Plant Master Plan public opinion summaries. Staff also met with regulatory and resource agencies to obtain input to produce the Preferred Alternative.

COORDINATION

This report has been coordinated with the City Attorney's Office, the Office of Economic Development, the Planning, Building, and Code Enforcement Department and is scheduled to be reported at the May 2011 Treatment Plant Advisory Committee meeting.

COST SUMMARY/IMPLICATION

The biosolids program cost implications include:

- The proposed approach using a design/bid/build approach and timeline up to 2025 will result in the projected capital costs of $230 million and an increase in operating costs up to $10 million/year once the facilities are complete and on-line. The increased operating costs are due to the need for energy needed to dry the solids as opposed to the current approach of using the sun in open-air lagoons and drying beds. In addition, chemical additions, odor control, and building maintenance needs will increase operating and maintenance costs.

- An accelerated approach to 2021 or sooner, if feasible, would increase operating costs sooner. An analysis would need to be performed on changes in capital costs when using alternative delivery options. While capital cost escalation could be avoided by implementing the biosolids capital projects sooner, the alternative delivery options may result in higher costs overall.
- A further accelerated approach using contract dewatering would require temporary contract dewatering facilities while permanent facilities are constructed. Staff had performed an analysis of a temporary contract dewatering option to eliminate the need for lagoons and drying beds 12 years sooner while constructing permanent facilities. As presented in the update to the Transportation and Environment Committee on December 6, 2010, this option would increase expenditures by $178 million to 2025 (includes operating and capital costs) in addition to the $230 million capital cost for the permanent facilities. For San Jose, this would mean an additional 8 percent one-time rate increase.

The current adopted 5-year capital program is funded exclusively from the Sewer Service and Use Charges (SSUC) for San Jose and other cities and agencies served by the Plant. As the capital program continues to increase in scope to implement the recommended projects of the final adopted Plant Master Plan, staff will evaluate the opportunities for alternative funding means, such as bonds, to pay for any large investments like the biosolids transition. Since each agency is responsible for setting their rates and fees, the need for alternative funding sources is unique to each agency. For, San José, it is anticipated that for the next three years revenues and reserve funds exist to pay for the capital program with no additional need for bonds. Every year, staff will review upcoming projects within the next three years to determine bonding opportunities.

CEQA

Not a Project, File No. PP10-069 (a) Staff Reports. The proposed action will allow staff and the consultants to continue to proceed with the analysis of potential environmental impacts of the proposed Plant Master Plan Preferred Alternative, including biosolids transition activities, as required by CEQA.

/s/ /s/

JOHN STUFFLEBEAN
Director, Environmental Services

DAVID SYKES
Acting Director of Public Works

For questions, please contact Bhavani Yerrapotu, Division Manager, Technical Services (ESD) at 945-5321 or Michael O'Connell, Acting Deputy Director (PW) at 535-8300.

Attachment A: Transition to New Dewatering and Drying – Timeline