

**SAN JOSE/SANTA CLARA TREATMENT PLANT ADVISORY COMMITTEE**

CHUCK REED, CHAIR  
BOB LIVENGOOD, VICE-CHAIR  
KEVIN MOORE, MEMBER  
PATRICIA MAHAN, MEMBER  
MADISON NGUYEN, MEMBER

KEN YEAGER, MEMBER  
JOHN GATTO, MEMBER  
ED SHIKADA, MEMBER  
NORA CAMPOS, MEMBER

**AGENDA**  
**May 13, 2010**

**4:30 p.m.**

**Room T-1047**

**1. ROLL CALL**

**2. MINUTES**

A. April 8, 2010

**3. UNFINISHED BUSINESS**

A. McCarthy Property: Discussion of Committee questions concerning history of purchase of McCarthy Property interest, potential liability related discontinuance of solar drying operation, prioritization of discontinuance of solar drying operation, and potential for shifting costs associated with that project to the developer or either to the developer or the homeowners over time, for a portion of the costs, including use of an assessment district formed on the McCarthy property to provide a funding source for the costs.

B. McCarthy deferral memo.

**4. CORRESPONDENCE**

**5. REPORTS**

A. Open Purchase Orders Greater Than \$100,000  
The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between \$100,000 and \$1 million and of services between \$100,000 and \$250,000.

B. TPAC – Proposed Capital Improvement Program – 2011-2015

C. TPAC – Proposed Operating and Maintenance Budget – 2010-2011

**6. AGREEMENTS**

A. Technical Committee Recommendation (Handout)

B. Action Item – TPAC Recommendation for Approval: SJ-19 Recycled Water

**The following action items are scheduled to be considered by the San Jose City Council on May 18, 2010:**

- (a) Reject all bids for the SJ-19 Recycled Water Airport Main Extension project.
- (b) Accept the report on re-bid of the project and award of contract for SJ-19 Recycled Water Airport Main Extension project to the low bidder, Bay Pacific Pipelines, Inc., for the term of May 2010 to August 2010, in an amount not to exceed \$473,000, and approve a project contingency in the amount of \$75,000.

C. Action Item – TPAC Recommendation for Approval: Carollo Engineers, CH2M Hill and Black & Veatch

**The following action items are scheduled to be considered by the San Jose City Council on May 18, 2010:**

Adopt a resolution authorizing the City Manager to negotiate and execute first amendments to the master agreements with:

- (a) Carollo Engineers for various capital improvements projects at the San Jose/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000 for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent;
- (b) CH2M Hill for various capital improvement projects at the San Jose/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent; and
- (c) Black & Veatch for various capital improvement projects at the San Jose/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by four percent.

D. Action Item – TPAC Recommendation for Approval: Biomethane Fuel Production

**The following action items are scheduled to be considered by the San Jose City Council on May 18, 2010:**

Adopt a resolution authorizing the City Manager to submit two grant proposals to the California Energy Commission, Alternative and Renewable Fuel and Vehicle Technology Program, for up to \$1,000,000 each to conduct pre-development planning for:

- (a) A Biomethane transportation fuel production facility on Water Pollution Control Plant lands, subject to the concurrence of the Treatment Plant Advisory Committee; and
- (b) An Alternative fuel vehicle manufacturing facility in San Jose.

**7. STATUS OF ITEMS PREVIOUSLY APPROVED BY TPAC**

**A. The following item was approved by the San Jose City Council on April 20, 2010.**

1. Accept this progress report highlighting activities since December 2009 on the master plan for the San José/Santa Clara Water Pollution Control Plant (Plant) and recommend that this progress report be placed on the April 20, 2010 Council Agenda for discussion.

**B. The following item was approved by the San Jose City Council on April 20, 2010**

1. Adopt a resolution making findings from the San José State EIR for on campus recycled water project improvements (PP10-006) in conformance with CEQA Guidelines, Sections 15091 and 15093.
2. Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with San Jose State University for services related to construction of recycled water facilities at a total cost to the City not to exceed Four Hundred Twenty-Two Thousand Dollars (\$422,000).

**C. The following items were approved by the San Jose City Council on April 20, 2010**

1. Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with U.S. Bureau of Reclamation to accept \$6.460 million in grant funds, of which \$6.310 million will be for design and construction of South Bay Water Recycling Phase 1C facilities, and \$150,000 will be retained by the Bureau of Reclamation for administrative and other costs.
2. Adopt the following Appropriation Ordinance and Funding Sources Resolution amendments in the San José-Santa Clara Treatment Plant Capital Fund:
  - a. Establish an estimate for Recovery Act – Federal Revenue in the amount of \$1,875,000;
  - b. Establish an appropriation to the Environmental Services Department for Recovery Act – South Bay Water Recycling Phase IC in the amount of \$6,310,000.
  - c. Decrease the appropriation to the Environmental Services Department for Revised South Bay Action Plan - SBWR Extension by \$4,435,000.

**D. The following item was approved by the San Jose City Council on April 20, 2010**

6. Adopt a resolution authorizing the City Manager to negotiate and execute the Seventh Amendment to the construction service agreement with City of Santa Clara for the South Bay Water Recycling Program, revising the approved project list, increasing the maximum amount payable by the City

of San José by Three Million Fifty Thousand Dollars (\$3,050,000) to a total maximum amount not to exceed Thirty-three Million Four Hundred and Fifty Thousand Dollars (\$33,450,000).

**E. The following item was approved by the San Jose City Council on April 20, 2010**

7. Report on bids and award of construction contract for the project ELECTRIC CART STORAGE to the lowest responsive bidder, R.A.N. Electric, Inc., in the amount of \$138,000, and approval of a contingency in the amount of \$13,800.

**F. The following item was approved by the San Jose City Council on April 20, 2010**

8. Report on bids and award of construction contract for the RAS & SS VALVE REPLACEMENT PROJECT SECONDARY – TUNNEL BATTERY B (B-1 THRU B-6) to the low bidder, Anderson Pacific Engineering Construction, Inc., in the amount of \$587,000, and approval of a contingency in the amount of \$58,700.

**8. MISCELLANEOUS**

- A. The next TPAC meeting will be Thursday, June 10, 2010, at 4:30 p.m. City Hall, Environmental Services, 10<sup>th</sup> Floor, Room 1047.

**9. OPEN FORUM**

**10. ADJOURNMENT**

NOTE: If you have any changes or questions, please contact Monica Perras, Environmental Services, 408-975-2515.

To request an accommodation or alternative format for City-sponsored meetings, events or printed materials, please call Monica Perras at (408) 975-2515 or (408) 294-9337 (TTY) as soon as possible, but at least three business days before the meeting/event.

**Availability of Public Records.** All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at San Jose City Hall, 200 East Santa Clara Street, 10<sup>th</sup> Floor, Environmental Services at the same time that the public records are distributed or made available to the legislative body.

**DRAFT**  
**MINUTES OF THE**  
**SAN JOSÉ/SANTA CLARA**  
**TREATMENT PLANT ADVISORY COMMITTEE**  
City Hall, Environmental Services, 10<sup>th</sup> Floor, Room 1047  
Thursday, April 8, 2010 at 4:30 p.m.

**1. ROLL CALL**

Minutes of the Treatment Plant Advisory Committee convened this date at 4:30 p.m. Roll call was then taken, with the following members in attendance:

Committee members: Chuck Reed (Chair), Bob Livengood (Vice Chair), Kevin Moore, Patricia Mahan, Madison Nguyen, John Gatto, Ken Yeager, Nora Campos.

Staff present: Monica Perras, Dale Ihrke, John Stufflebean, Mollie Dent, Bhavani Yerrapotu, Mansour Nasser, Matt Krupp, Erick Hansen.

Others present: Kathleen Phalen (City of Milpitas), Steve Machida (Cupertino Sanitary District), Robert Reid (West Valley Sanitation District), Alan Kurotori, (City of Santa Clara), David Wall (San José City Resident) John Ryan (CH2MHill).

**2. APPROVAL OF MINUTES**

A. Minutes of February 25, 2010.

Item 2.A was approved unanimously.

**3. UNFINISHED BUSINESS**

**4. CORRESPONDENCE**

**5. REPORTS**

A. Open Purchase Orders Greater Than \$100,000  
The attached monthly Procurement and Contract Activity Report summarizes the purchase and contracting of goods with an estimated value between \$100,000 and \$1 million and of services between \$100,000 and \$250,000.

Item 5.A was approved unanimously.

**6. AGREEMENTS**

A. Technical Committee Recommendation (Handout)

Item 6.A was approved unanimously.

B. Action Item – TPAC Recommendation for Approval Requested -Plant Master

**Item scheduled to be considered by the San Jose City Council on April 20, 2010:**

1. Accept this progress report highlighting activities since December 2009 on the master plan for the San José/Santa Clara Water Pollution Control Plant (Plant) and recommend that this progress report be placed on the April 20, 2010 Council Agenda for discussion.

Motion by Committee member Gatto, second by Committee member Yeager to recommend Item 6.B.1 for Council consideration.

C. Action Item – TPAC Recommendation for Approval Requested – San Jose State University Recycled Water Project

**Items scheduled to be approved by the San Jose City Council on April 20, 2010:**

1. Adopt a resolution making findings from the San José State EIR for on campus recycled water project improvements (PP10-006) in conformance with CEQA Guidelines, Sections 15091 and 15093.
2. Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with San Jose State University for services related to construction of recycled water facilities at a total cost to the City not to exceed Four Hundred Twenty-Two Thousand Dollars (\$422,000).  
**To be heard with Items 6.D.1&2 and 6.E.1.**

Motion by Committee member Mahan, second by Committee member Livengood to recommend Items 6.C.1&2 for Council approval.

D. Action Item – TPAC Recommendation for Approval Requested – South Bay Water Recycling Phase 1C Facilities

**Items scheduled to be approved by the San Jose City Council on April 20, 2010:**

1. Adopt a resolution authorizing the City Manager to negotiate and execute an agreement with U.S. Bureau of Reclamation to accept \$6.460 million in grant funds, of which \$6.310 million will be for design and construction of South Bay Water Recycling Phase 1C facilities, and \$150,000 will be retained by the Bureau of Reclamation for administrative and other costs.
2. Adopt the following Appropriation Ordinance and Funding Sources Resolution amendments in the San José-Santa Clara Treatment Plant Capital Fund:

- a. Establish an estimate for Recovery Act – Federal Revenue in the amount of \$1,875,000;
- b. Establish an appropriation to the Environmental Services Department for Recovery Act – South Bay Water Recycling Phase IC in the amount of \$6,310,000.
- c. Decrease the appropriation to the Environmental Services Department for Revised South Bay Action Plan - SBWR Extension by \$4,435,000.

**To be heard with Items 6.C.1&2, and 6.E.1**

Motion by Committee member Gatto, second by Committee member Livengood to recommend Items 6.D.1&2(a,b,c) for Council approval.

- E. Action Item – TPAC Recommendation for Approval Requested – Seventh Amendment with City of Santa Clara for South Bay Water Recycling

**Item scheduled to be approved by the San Jose City Council on April 20, 2010:**

1. Adopt a resolution authorizing the City Manager to negotiate and execute the Seventh Amendment to the construction service agreement with City of Santa Clara for the South Bay Water Recycling Program, revising the approved project list, increasing the maximum amount payable by the City of San José by Three Million Fifty Thousand Dollars (\$3,050,000) to a total maximum amount not to exceed Thirty-three Million Four Hundred and Fifty Thousand Dollars (\$33,450,000).

**To be heard with Item 6.C.1&2 and 6.D.1&2**

Motion by Committee member Campos, second by Committee member Moore to recommend Item 6.E.1 for Council approval.

- F. Action Item – TPAC Recommendation for Approval Requested – Electric Storage Bid Award

**Item scheduled to be approved by the San Jose City Council on April 20, 2010:**

1. Report on bids and award of construction contract for the project ELECTRIC CART STORAGE to the lowest responsive bidder, R.A.N. Electric, Inc., in the amount of \$138,000, and approval of a contingency in the amount of \$13,800.

Motion by Committee member Gatto, second by Committee member Yeager to recommend Item 6.F.1 for Council approval.

G. Action Item – TPAC Recommendation for Approval Requested – Valve Replacement Project

**Item scheduled to be approved by the San Jose City Council on April 20, 2010:**

1. Report on bids and award of construction contract for the RAS & SS VALVE REPLACEMENT PROJECT SECONDARY – TUNNEL BATTERY B (B-1 THRU B-6) to the low bidder, Anderson Pacific Engineering Construction, Inc., in the amount of \$587,000, and approval of a contingency in the amount of \$58,700.

Motion by Committee member Gatto, second by Committee member Moore to recommend accept Item 6.G.1 for Council approval.

7. STATUS OF ITEMS PREVIOUSLY APPROVED BY TPAC

The following items were approved by the San Jose City Council on March 2, 2010

Filter Rehabilitation

1. Reject all bids for the San José/Santa Clara Water Pollution Control Plant, Filter Rehabilitation, FY 2009/2010 project.
2. Adopt a resolution authorizing the City Manager or her designee to:
  - (a) Award the contract for the San José/Santa Clara Water Pollution Control Plant, Filter Rehabilitation, FY 2009/2010 project to the lowest responsive and responsible bidder in an amount not to exceed \$300,000 and approval of a 10% construction contingency, subject to the concurrence of the Treatment Plant Advisory Committee; and
  - (b) Decide any timely bid protest(s), make the City's final determination as to the lowest responsive and responsible bidder, or to reject all bids and re-bid the project.

Advanced Water Treatment Facility

1. Adopt a resolution approving the Santa Clara Valley Water District "Mitigated Negative Declaration for Advanced Water Treatment Facility (AWTF)" and direction to City staff to implement the mitigation measures identified in the Mitigated Negative Declaration as applicable to City activities related to the AWTF.
2. Adopt a resolution authorizing the City Manager or designee to (1) award the "Contract for AWTF Early Earthworks" to the lowest responsive and responsible bidder and to establish a ten percent (10%) construction contingency, in an amount, including the contract award plus contingency, not to exceed \$2 million; and (2) decide any timely protest(s), make the City's final determinations to the lowest responsive and responsible bidder, or to reject all bids and rebid the project.



3. Approve “Agreement Between the City of San José and the Santa Clara Valley Water District for Integration of Facilities and Programs for the Use of Recycled Water in Santa Clara County” to promote cooperation between City and District related to the management and operation of their respective recycled water facilities for a term of forty years at an initial cost to the City not to exceed \$11 million (including the cost of the AWTF Earthwork contract) and an ongoing net cost to City of not to exceed \$2 million per year.
4. Approve “Ground Lease and Property Use Agreement By and Between the City of San José and the Santa Clara Valley Water District for Advanced Water Treatment Facility” for a term of forty years to allow the District to construct and operate an AWTF on approximately five (5) acres of property located at the San José/Santa Clara Water Pollution Control Plant and to use other Plant property to connect the AWTF to the Plant.

Report on Item 7 approved unanimously

7. **MISCELLANEOUS**

- A. The next TPAC was announced for May 13, 2010 at 4:30 p.m. City Hall, Environmental Services, 10<sup>th</sup> Floor, Room 1047.

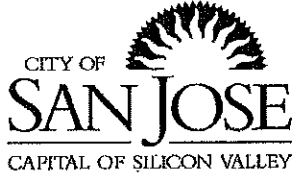
8. **PUBLIC COMMENT**

- A. David Wall submitted a speaker card supporting strengthening JPA’s.

10. **ADJOURNMENT**

- A. The Treatment Plant Advisory Committee adjourned at 4:55 p.m.

Chuck Reed, Chair  
Treatment Plant Advisory Committee



# Memorandum

**TO:** TREATMENT PLANT  
ADVISORY COMMITTEE

**FROM:** John Stufflebean

**SUBJECT:** McCARTHY PROPERTY

**DATE:** 12-03-09

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Approved

Date

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This memorandum responds to the request made by the Treatment Plant Advisory Committee at its October 2009 meeting for information regarding the Plant's interests in the McCarthy Property in Milpitas. Specifically, the Committee asked staff and the City Attorney's Office to respond to the following questions:

1. What rights did the Plant purchase and what was the purchase price? What would the rights be worth now if the Plant were to agree to release the rights?
2. What is the potential for monetary liability to homeowners for damages if development is allowed to occur before the solar drying operation is discontinued?
3. What is the impact on the water recycling project that we are trying to get done, if we try to move forward now with discontinuing the solar drying operation at the same time? Does there need to be prioritization, or can we do both? What are the potential rate increases associated with doing these projects separately at the same time?
4. Could an assessment district be formed on the McCarthy property to provide a funding source for all or a portion of the costs associated with discontinuing the solar drying operation? Is there some way to shift costs associated with that project to the developer or either the developer or the homeowners over time, for a portion of the cost, or must all of the costs be paid for through rates?

Written answers to questions 1 and 3 are provided below. The City Attorney's Office will provide verbal response at the TPAC meeting on questions 2 and 4.

**Question 1.** What rights did the Plant purchase and what was the purchase price? What would the rights be worth now if the Plant were to agree to release the rights?

As a result of a settlement agreement in 1998 between the City of San Jose and the McCarthy property owners, the City purchased a 50-year deed restriction (through 2048) on 140 acres of McCarthy Ranch property, to exclude "odor sensitive uses" (residential, lodging, or other such overnight uses.) The City's purchase also included a 6 acre strip of land located along Coyote Creek, and within 500 feet of the Plant's biosolids drying beds, including a house located on that property. The purchase price for the entire transaction was \$6 million and required the house to be leased back to McCarthy for a term of five years at \$800 per year for use by farm laborers working on McCarthy lands. The \$6 million purchase price was budgeted and paid for out of

Treatment Plant funds. The house is currently planned for demolition at a cost of \$200K due to its unsafe and poor condition. The current property zoning with the deed restrictions, allows the development of uses such as commercial, retail or industrial uses.

The City has not obtained an appraisal of the fair market value of the deed restriction or the 6 acre strip of land. However, the value of the deed restriction to the Plant is more than just the original \$6 million paid, because any valuation must consider the cost impact to the Plant of allowing residential so close to the biosolids drying area, while it is still in operation. The deed restriction was purchased to prevent residential development in such close proximity to the current open air dewatering and drying operation and staff continues to believe that residential use of such property is incompatible with the Plant's interest, as long as the open air operation is in use.

Plant Master Plan work to date indicates that the earliest timeframe for permanently changing the biosolids drying process is 10 to 12 years. Until that time, the Plant would continue to use open air drying for its biosolids and reuse the material as Alternate Daily Cover at the nearby Newby Island Landfill, where the Plant has a contract for reuse for the next 10 years, and it is anticipated that, subject to renegotiation with Newby Island, the Plant could continue with landfill disposal until the landfill closes or regulatory changes prevent use for biosolids as Alternate Daily Cover. It should be noted that if the deed restriction remains in place, the Plant would not need to begin planning to change the biosolids process due to concern with conflicting residential uses for many years.

Current dewatering, drying and disposal of biosolids cost the Plant \$3.5 million/year. The Plant Master Plan project has assumed that open air drying will be phased out over the next 30 years. In response to the request from TPAC members on what it would cost to accommodate the request to release property restrictions sooner than the Master Plan time frame, staff has worked with the Plant Master Plan consultants to develop an alternative approach to discontinue open air dewatering and drying operations in a shorter, three to four year, time frame. This approach, which consists of contracting out the solids dewatering operation, is estimated to cost the Plant \$13 million per year for a period of 10 to 12 years. This approach represents a \$9.5 million per year increase in biosolids processing and reuse. The cost to the Tributary agencies would be in proportion to their O&M cost share agreement. It should also be noted that this would be an interim solution that has a life expectancy of 12 years. The Plant Master Plan consultants have given initial estimates of over \$500 million in capital costs alone to convert to a permanent alternative biosolids processing and disposal technology, with the earliest time frame for completing such conversion being 10 to 12 years.

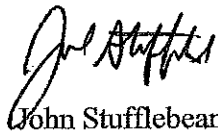
**Question 3:** What is the impact on the water recycling project that we are trying to get done, if we try to move forward now with discontinuing the solar drying operation at the same time? Does there need to be prioritization, or can we do both? What are the potential rate increases associated with doing these projects separately at the same time?

As indicated above, the Plant Master Plan project has assumed that open air drying will be phased out over the next 30 years. Given that biosolids technologies are still evolving and many

treatment plants in the Bay area and nation are facing significant and costly decisions regarding biosolids treatment and reuse options, a final cost analysis is not yet available for what future technologies may be needed. The current estimate for discontinuing open air solar drying is over \$500 million in capital costs alone with significant increases in operating costs. Pilot testing will be needed in order to determine the most efficient and cost-effective treatment technologies. Based on the current operations (4 year cycle in the drying beds), need for environmental review of alternatives, need for pilot testing and the significant cost, it will take a minimum of 10 to 12 years to discontinue solar drying. Acceleration of the project would incur the costs described above to accomplish discontinuation of the open air drying operation sooner and therefore result in higher operations and maintenance costs sooner.

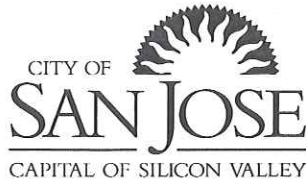
The funding for the Plant's share of the Advanced Water Treatment Project of \$11 million has been allocated in the Plant's existing 5-year CIP. A new project to discontinue open air drying sooner than completion of the Plant Master Plan would need to be prioritized within the ongoing needs. Although San Jose does not set the sewer rates for the tributary agencies, the potential rate impact of the new project on San Jose rate payers would be significant and it is assumed the same would be true for the tributary agencies.

Staff will be prepared to respond to questions and concerns at the TPAC meeting on December 10, 2009. The City's Attorney Office will be verbally answering the legal questions on which the Committee requested information. For further information, please contact Dale Ihrke, Deputy Director, at 945-5198.



John Stufflebean

Director, Environmental Services



# Memorandum

**TO:** TREATMENT PLANT  
ADVISORY COMMITTEE

**SUBJECT:** McCARTHY PROPERTY

**FROM:** John Stufflebean

**DATE:** 05-06-10

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Approved

Date

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This memorandum supplements the attached memorandum dated December 3, 2009, to the Treatment Plant Advisory Committee containing information regarding the Plant's interests in the McCarthy Property in Milpitas. Specifically, this memorandum updates the information previously provided regarding the amount of Plant funds paid to McCarthy and the value of the Plant's property rights.

Plant funds in the amount of \$6,534,000 were paid to McCarthy pursuant to the 1998 settlement agreement described in the December 9, 2009 memo. As indicated in the December 9, 2009 memo, the current fair market value of the deed restriction and land acquired by the Plant is unknown. The value to the Plant is also unknown, but may be more than current fair market because the value to the Plant needs to consider the cost impact to the Plant of allowing residential so close to the biosolids drying area, while it is still in operation.

The Plant Master Plan assumptions regarding the drying beds have not changed since the December 9, 2009 memorandum. The Master Plan alternatives that are currently being reviewed all indicate that the earliest timeframe for beginning to change the biosolids drying process is 10 to 12 years; and the alternatives assume that open air drying will be phased out over the next 30 years. The Plant Master Plan consultants cost estimate for an alternative approach that would allow open air dewatering and drying operations to be discontinued in a shorter, three to four year, time frame is still \$13 million per year for a period of 10 to 12 years, with estimated capital costs still at about \$450 million in capital costs to convert to a permanent alternative biosolids processing and disposal technology, within the 10 to 12 year time frame.

Staff will be prepared to respond to questions and concerns at the TPAC meeting on May 13, 2010. The City's Attorney Office will be verbally answering the legal questions on which the Committee requested information. For further information, please contact Dale Ihrke, Deputy Director, at 945-5198.

John Stufflebean  
Director, Environmental Services



May 6, 2010  
Treatment Plant Advisory Committee  
c/o John Stufflebean  
Director Environmental Services Department  
City of San Jose  
200 East Santa Clara Street  
10th Floor  
San Jose, CA 95113-1905

Subject: McCarthy Ranch TPAC Meeting 05/13/10

Dear TPAC Members,

We are requesting that our item scheduled on the 05/13/10 TPAC agenda discussing the McCarthy property be deferred until we have a better understanding on how the Plant Master Plan is progressing and what improvements the plan contemplates. We have been working diligently to understand all the issues involved in this matter and appreciate the Board's willingness to address our concerns in the near future. We will be in contact with San Jose City staff and will ask to be agendaized when appropriate.

Thank you,

Joe McCarthy  
McCarthy Ranch

CC: Via E-Mail

Bob Livengood	<a href="mailto:rlivengood@ci.milpitas.ca.gov">rlivengood@ci.milpitas.ca.gov</a>
Chuck Reed	<a href="mailto:mayoremail@sanjoseca.gov">mayoremail@sanjoseca.gov</a>
Kevin Moore	<a href="mailto:mayorandcouncil@santaclaraca.gov">mayorandcouncil@santaclaraca.gov</a>
Patricia Mahan	<a href="mailto:mayorandcouncil@santaclaraca.gov">mayorandcouncil@santaclaraca.gov</a>
Madison Nguyen	<a href="mailto:District7@sanjoseca.gov">District7@sanjoseca.gov</a>
John Stufflebean	<a href="mailto:john.stufflebean@sanjoseca.gov">john.stufflebean@sanjoseca.gov</a>
Ken Yeager	<a href="mailto:Ken.Yeager@bos.sccgov.org">Ken.Yeager@bos.sccgov.org</a>
John Gatto	<a href="mailto:whitlusmanor@mac.com">whitlusmanor@mac.com</a>
Ed Shikada	<a href="mailto:ed.shikada@sanjoseca.gov">ed.shikada@sanjoseca.gov</a>
Nora Campos	<a href="mailto:District5@sanjoseca.gov">District5@sanjoseca.gov</a>
Kathleen Phalen	<a href="mailto:kphalen@ci.milpitas.ca.gov">kphalen@ci.milpitas.ca.gov</a>

**City Manager's Contract Approval Summary**  
**For Procurement and Contract Activity between \$100,000 and \$1 Million for Goods and \$100,000 and \$250,000 for Services**

March 24, 2010 - April 23, 2010

Description of Contract Activity <sup>1</sup>	Fiscal Year	Req#/ RFP#	PO#	Vendor/Consultant	Original \$ Amount	Start Date	End Date	Additional \$ Amount	Total \$ Amount
APPROX 400 TONS ALUM INUM SULFATE	FY09-10	11600	00000	General Chemical Corp	\$180,000	6/3/10			
	FY10-11	11915	00000	Badger Meter	\$260,000	7/1/10			
Bulk Sulfur Dioxide/ 1500 Tons	FY10-11	11910	00000	Teck American	\$220,000	7/1/10			
Liquid Sodium Hypochlorite 12.5%	FY10-11	11998	00000	Olin Corporation	\$500,000	7/1/10			
Bulk Liquid Chlorine	FY10-11	11891	00000	Olin Corporation	\$450,000	7/1/10			
Aqueous Ammonia industrial Grade 19%	FY10-11	11909	00000	Hills Bros Chemical	\$150,000	7/1/10			
33,000 gallons of 25% sodium Bisulfite	FY10-11	11999	00000	Basic Chemical Solution	\$100,000	7/1/10			
Fuel and Petroleum Products	FY10-11	12054	00000	Valley Oil Company	\$150,000	7/1/10			
Fuel and Petroleum Products	FY10-11	12057	00000	Western States Oil	\$275,000	7/1/10			
Repair Leaking and Missing Expansion Joints	FY10-11	11967	00000	Tucker Construction	\$150,000	7/1/10			
Electrical Parts and Supplies	FY10-11	11968	00000	Graybar Electric Co	\$180,000	7/1/10			
Building Maintenance Supplies	FY10-11	11908	00000	Grainger, W W Inc	\$250,000	7/1/10			
Fuel and Petroleum Products	FY10-11	11904	00000	Coast Oil Co	\$140,000	7/1/10			
New and Repaired Replacment Hardware	FY10-11	11897	00000	ABB Inc	\$250,000	7/1/10			
Misc Emergency	FY09-10	11747	00000	Monterey Mechanical	\$100,000	3/2/10			
Overhaul of TPS & Floway Pumps	FY09-10	11751	00000	Alfred Conhagen	\$130,000	3/2/10			
Misc Emergency	FY09-10	11749	00000	DW Nicholson	\$100,000	3/2/10			
OEA 11237, FOR THE CLEANING OF DIGESTERS	FY09-10	11612	00000	North American Digester	\$250,000	2/1/10			

<sup>1</sup> This report captures in process contract activity (Requisition Number or RFP Number) and completed contract activity (Purchase Order Number, Contract Term, and Contract Amount)

# PROPOSED

## SAN JOSE / SANTA CLARA WATER POLLUTION CONTROL PLANT

700 Los Esteros Road  
San Jose, California 95134

### Five-Year 2011-2015 Capital Improvement Program

Submitted by

John Stufflebean, Director

Environmental Services Department

City of San Jose

### **TO: Treatment Plant Advisory Committee**

Chuck Reed	(Chair) Mayor, City of San Jose
Nora Campos	Councilmember, City of San Jose
John M. Gatto	Boardmember, Cupertino Sanitary District
Bob Livengood	(Vice Chair) Mayor, City of Milpitas
Patricia Mahan	Mayor, City of Santa Clara
Ken Yeager	Boardmember, West Valley Sanitation District
Kevin Moore	Councilmember, City of Santa Clara
Madison Nguyen	Councilmember, City of San Jose
Ed Shikada	Deputy City Manager, City of San Jose



# Water Pollution Control Capital Program

## 2011-2015 Proposed Capital Improvement Program

### Overview

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#### Introduction

The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight tributary sewage collection agencies (Agencies), including municipalities and sanitary sewer districts. The service area includes the following cities and adjacent, unincorporated County territory: San José, Santa Clara, Milpitas, Cupertino Sanitary District, West Valley Sanitary District (Campbell, Los Gatos, Monte Sereno and Saratoga), County Sanitation Districts 2-3, Sunol and Burbank Sanitary Districts. 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.

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 its own sewage collection system maintenance, operation, and capital costs; 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 Plant Capital Improvement Program (CIP) projects are 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.

#### Sources of Funding

The 2011-2015 Proposed CIP provides funding of \$393.5 million, of which \$97.3 million is allocated in 2010-2011.

Revenues for the Five-Year CIP are derived from several sources: Contributions from the City of Santa Clara and Other Agencies (\$95.5 million); transfers from the City of San José Sewer Service and Use Charge Fund

# Water Pollution Control Capital Program

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## 2011-2015 Proposed Capital Improvement Program

### Overview

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#### Sources of Funding (Cont'd.)

(\$216 million) and the Sewage Treatment Plant Connection Fee Fund (\$15.5 million); Interest Earnings (\$12.4 million); Calpine Metcalf Energy Center Facilities Repayments (\$1.9 million); and federal grants from the US Bureau of Reclamation (\$500,000). In addition, \$51.6 million in available fund balance is programmed to support projects identified in this five-year program.

Contributions from the City of Santa Clara and other agencies are determined by agreements with the participating agencies, financing plans, anticipated expenditures for the Plant 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 \$95.5 million, which represents an \$8.9 million (10%) increase compared to the 2010-2014 Adopted CIP. This increase results from the additional capital investments proposed in this CIP, including such projects as the Plant Electrical Reliability project, and increases to the Plant Infrastructure Improvements, Equipment Replacement Program, and Plant Master Plan projects.

The Sewer Service and Use Charge Fund is an operating fund that derives its revenues from fees imposed on San José's residential, commercial, and industrial users of the sanitary sewer system and represents 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 \$6.0 million (3%) increase compared to the 2010-2014

Adopted CIP. This level of transfers assumes rate increases of 6% in 2010-2011, as well as the two following years. This rate increase, discussed further in the 2010-2011 Proposed Operating Budget, would ensure adequate funding for the Sanitary Sewer and Water Pollution Control operating and capital needs.

An annual transfer of \$3.1 million is anticipated from San José's Sewage Treatment Plant Connection Fee Fund and is programmed as part of the 2011-2015 Proposed CIP.

#### Program Highlights

##### 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 \$62.0 million for the Digester Rehabilitation Project.

##### Plant Electrical Reliability Program

The 2011-2015 Proposed CIP includes \$64.9 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 installation of a standby generator, engine generator replacement, switchgear upgrades and replacement, and breaker replacement.

# Water Pollution Control Capital Program

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## 2011-2015 Proposed Capital Improvement Program

### Overview

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#### Program Highlights (Cont'd.)

##### Plant Electrical Reliability Program (Cont'd)

Several elements of the Plant Electrical Reliability program have already been implemented and construction to add new switchgear and cables to create an interim ring buss distribution system is almost complete. Design is in progress to prepare several more projects for construction to start in 2010 to replace additional switchgears and motor control centers.

##### Plant Master Plan Project

The Plant initiated a Plant Master Planning project in 2005. The Plant Master Plan will be the blue print for the Plant's development over the next 30 years, covering expected wastewater flows and loads to the Plant, rates, staffing, Plant infrastructure, use of the buffer lands, bio-solids processing, and many other operational items. Four key conditions drive the need for the Master Plan: new regulations, community growth, community values, and infrastructure rehabilitation. The Plant Master Plan will strive to balance environmental, economic, and community social preferences with the technical needs of the Plant in its land use recommendations.

In the 4<sup>th</sup> Quarter of 2007, staff selected a consultant to develop the Plant Master Plan which includes a 30-year CIP, a buffer-land management plan, a financing plan, and a staffing plan. The Master Plan is projected to be completed by 2011 with environmental clearance completed in 2012. Following the completion of the consultant's report, it is estimated that it will take two to three years to assess the report recommendations and evaluate financing options, before significant work on projects will commence. In this CIP,

\$2.4 million is proposed to fund the remainder of the consultants' work on this Plant Master Plan. Additionally, a recommendation to establish a reserve for Plant Master Plan Improvements (\$10.0 million) is included in this CIP, to fund some of the projects arising out of the Plant Master Plan report.

The Master Plan will set directions for the many complex projects required for the Plant due to aging infrastructure and future regulations, and serve as a tool to identify and prioritize near-term CIP projects for upgrades and replacements. The current five-year CIP has been modified to address the major upgrades expected for liquids treatment and energy generation and an overhaul of the entire solids treatment process. Major progress was made to identify the future treatment processes and technologies for liquids and solids as well as renewable energy generation.

Preliminary Master Plan recommendations have identified future wastewater treatment processes that help shape expectations for the future physical footprint of the Plant's operational area. This footprint is expected to 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 this process. Over 6,000 community members have toured the Plant in 2008 and 2009, the Plant Master Plan website has also provided the public with up-to-date information on the Plan's progress. A Community Advisory Group (CAG) has been formed and is meeting monthly for detailed sessions to discuss the complex issues facing the Plant.

# Water Pollution Control Capital Program

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## 2011-2015 Proposed Capital Improvement Program

### Overview

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#### Program Highlights (Cont'd.)

##### 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 at 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.

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 Jose. During the five years of this CIP, the Airport Main Extension, the San Jose Schools and Laterals Extension, and Guadalupe Gardens Lateral Extension projects are expected to be completed. In addition, a collaborative effort is underway with the Santa Clara Valley Water District for future expansion, operation and maintenance of the system. This proposed CIP includes \$1.9 million of funding for the Revised South Bay Action Plan – SBWR Extension project.

##### 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 \$44.9 million allocation for Plant Infrastructure Improvements, as well as funding for several independent infrastructure projects is 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, to ensure that appropriate technologies are selected given the specific characteristics of the Plant service area's wastewater and to ensure an increased

# Water Pollution Control Capital Program

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## 2011-2015 Proposed Capital Improvement Program

### Overview

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#### Program Highlights (Contd.)

#### Plant Infrastructure Needs Improvements (Cont'd.)

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 existing engine generator 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.

#### Other Projects

The 2011-2015 Proposed CIP includes other major projects that will require an investment of capital funds. The following priority projects, whose costs all exceed \$4.0 million, are required to meet regulatory mandates, ensure process reliability, provide for a safe work environment, or provide process efficiencies or cost savings:

- Secondary and Nitrification Clarifier Rehabilitation and Upgrade – \$8.4 million in this CIP;
- Filter Improvements - \$6.6 million in this CIP;

- Headworks Enhancement – \$4.7 million in this CIP;
- Headworks No. 2 Expansion - \$4.0 million in this CIP;

#### Reserve for Equipment Replacement

As in prior CIP's, the 2011-2015 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) Policy for implementing the State Revolving Fund for Construction of Wastewater Treatment requires that annual revenue requirements include funds for the replacement of major equipment for maintaining the capacity and performance of the treatment plant over its useful life.

Compliance with the SWRCB's policy is a requirement of State Revolving Fund Loan Agreements. Equipment replacement of \$11.2 million and a reserve of \$5.0 million are included in the 2011-2015 Proposed CIP to satisfy this requirement.

- 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 exhausted, or are insufficient to meet the need.

**Water Pollution Control Capital Program**  
**2011-2015 Proposed Capital Improvement Program**

**Overview**

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**Program Highlights (Cont'd.)**

Reserve for Equipment Replacement (Cont'd.)

- 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.

**Major Changes from the 2010-2014 Adopted CIP**

Major changes from the 2010-2014 Adopted CIP include the following:

- A decrease of \$34.0 million for Digester Rehabilitation.
- A \$16.4 million decrease in funding for Plant Infrastructure Improvements.
- Additional funding in the amount of \$9.0 million as transfers from the City of Santa Clara and Other Agencies for the Agencies' proportionate costs for CIP projects.

- Additional funding in the amount of \$6.0 million as transfers from the Sewer Service and Use Charge Fund for City of San Jose costs for CIP projects.
- New funding in the amount of \$6.6 million for Filter Improvements.
- Addition of new projects: Advanced Process Control and Automation (\$11.0 million), Inactive Lagoons Bio-solids Removal (\$10.1 million), Fine Bubble Membrane Diffuser Conversion (\$7.8 million), and Iron Salt Feed Station (\$2.3 million).

**Operating Budget Impact**

None of the proposed projects are projected to negatively impact the operating costs. On the contrary, several projects proposed in this CIP, such as the Fine Bubble Diffuser Conversion, Advanced Process Control, and Meter Validation, are aimed at reducing energy and operations costs, through operational efficiency improvements. 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**  
**2011-2015 Proposed Capital Improvement Program**  
**Source of Funds**

<b>SOURCE OF FUNDS</b>	<b>Estimated 2009-2010</b>	<b>2010-2011</b>	<b>2011-2012</b>	<b>2012-2013</b>	<b>2013-2014</b>	<b>2014-2015</b>	<b>5-Year Total</b>
<u>San José-Santa Clara Treatment Plant Capital Fund</u>							
Beginning Fund Balance	73,589,952	51,639,710	4,872,710	1,196,710	2,160,710	2,239,710	51,639,710 *
Revenue from Other Agencies:							
<u>Federal Government</u>	500,000	500,000					500,000
- U.S. Bureau of Reclamation Grant							
<u>Water Pollution Control Plant User Agencies</u>							
- 2005 Bond Debt Repayment	1,234,000	1,233,000	1,229,000	1,227,000	1,228,000	1,221,000	6,138,000
- Equipment Replacement	591,000	591,000	591,000	591,000	591,000	591,000	2,955,000
- SRF Loan Repayment	1,384,000	1,373,800	1,373,800	1,373,800	1,373,800	1,373,800	6,869,000
- WPCP Projects	11,991,000	10,371,000	18,106,000	16,759,000	17,651,000	16,666,000	79,553,000
<b>Contributions, Loans and Transfers from:</b>							
<u>Special Funds</u>							
- Transfer from the Sewage Treatment Plant Connection Fee Fund (539)	3,080,000	3,090,200	3,090,200	3,090,200	3,090,200	3,090,200	15,451,000
- Transfer from the Sewer Revenue Bond Payment Fund (537)	4,200,000						
- Transfer from the Sewer Service and Use Charge Fund (541)	28,747,000	26,816,000	38,799,000	46,792,000	51,796,000	51,766,000	215,969,000
<b>Interest Income</b>	1,310,000	1,316,000	1,721,000	2,627,000	3,213,000	3,562,000	12,439,000
<b>Miscellaneous Revenue</b>							
- Calpine Metcaif Energy Center Facilities Repayment	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
<b>Reserve for Encumbrances</b>	28,716,758						
<b>Total San José-Santa Clara Treatment Plant Capital Fund</b>	<b>155,732,710</b>	<b>97,319,710</b>	<b>70,171,710</b>	<b>74,045,710</b>	<b>81,492,710</b>	<b>80,898,710</b>	<b>393,458,710 *</b>

Water Pollution Control  
2011-2015 Proposed Capital Improvement Program  
**Source of Funds**

	Estimated 2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	5-Year Total
<u>SOURCE OF FUNDS (CONT'D.)</u>							
<b>TOTAL SOURCE OF FUNDS</b>	155,732,710	97,319,710	70,171,710	74,045,710	81,492,710	80,898,710	393,458,710 *

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



**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**

**Use of Funds**

<u>USE OF FUNDS</u>	Estimated 2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	5-Year Total
<u>Construction Projects</u>							
<b>Public Art</b>							
1. Public Art	645,000	275,000	545,000	504,000	531,000	501,000	2,356,000
<b>Total Public Art</b>	<b>645,000</b>	<b>275,000</b>	<b>545,000</b>	<b>504,000</b>	<b>531,000</b>	<b>501,000</b>	<b>2,356,000</b>
<b>Water Pollution Control Managed Projects</b>							
Alternative Disinfection	6,572,000	60,000					60,000
Dissolved Air Flotation Pressure Retention Tank and Valves	690,000						
Environmental Services Building Repair	2,518,000						
Headworks No. 2 Expansion						4,000,000	4,000,000
Land Management and Improvements	250,000						
M5, Ring Buss, and Cable Replacement	5,522,000						
SBWR Reservoir Facility	6,000,000						
WPCP Reliability Improvements	38,000						
2. Advanced Process Control and Automation		1,940,000	2,440,000	1,440,000	2,590,000	2,590,000	11,000,000
3. Digester Rehabilitation	2,189,000	1,000,000	30,000,000	1,000,000	29,000,000	1,000,000	62,000,000
4. East Primary Concrete Tank Repair and Stainless Steel Conversion		1,684,000	1,821,000	100,000			3,605,000
5. Fine Bubble Membrane Diffuser Conversion		750,000	1,500,000	1,200,000	50,000	4,300,000	7,800,000
6. Fuel Cell		1,326,000	25,000				1,351,000
7. Headworks Enhancement	500,000		518,000	145,000			4,663,000
8. Inactive Lagoons Bio-Solids Removal		875,000	240,000	3,000,000	3,000,000	3,000,000	10,115,000
9. Iron Salt Feed Station		340,000	2,000,000				2,340,000
10. Plant Electrical Reliability	23,015,000	3,400,000	2,200,000	36,000,000	2,300,000	21,000,000	64,900,000

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**

**Use of Funds**

<u>USE OF FUNDS (CONT'D.)</u>	<u>Estimated 2009-2010</u>	<u>2010-2011</u>	<u>2011-2012</u>	<u>2012-2013</u>	<u>2013-2014</u>	<u>2014-2015</u>	<u>5-Year Total</u>
<b>Construction Projects</b>							
<b>Water Pollution Control Managed Projects</b>							
11. Secondary and Nitrification Clarifier Rehabilitation	1,000,000	3,701,000	1,658,000	400,000	2,400,000	220,000	8,379,000
12. Warehousing Facility Additions	300,000	1,500,000					1,800,000
<b>Total Water Pollution Control Managed Projects</b>	<b>48,294,000</b>	<b>19,376,000</b>	<b>43,902,000</b>	<b>43,285,000</b>	<b>39,340,000</b>	<b>36,110,000</b>	<b>182,013,000</b>
<b>Watershed Protection Managed Projects</b>							
ESD MIS Improvements	212,000						1,479,000
Lab Information Management System	61,000						6,555,000
Salt Marsh Restoration	63,000						1,945,000
13. Dissolved Air Flotation Dissolution Improvements		298,000	1,158,000	23,000			1,479,000
14. Filter Improvements		200,000	2,000,000	2,355,000	1,000,000	1,000,000	6,555,000
15. Revised South Bay Action Plan - SBWR Extension		389,000	389,000	389,000	389,000	389,000	1,945,000
<b>Total Watershed Protection Managed Projects</b>	<b>24,319,000</b>	<b>887,000</b>	<b>3,547,000</b>	<b>2,767,000</b>	<b>1,389,000</b>	<b>1,389,000</b>	<b>9,979,000</b>
<b>Recurring Projects</b>							
16. Equipment Replacement	7,074,000	2,420,000	1,846,000	3,883,000	1,525,000	1,525,000	11,199,000
17. Plant Infrastructure Improvements	7,103,000	8,472,000	7,039,000	4,364,000	12,384,000	12,634,000	44,893,000
18. Unanticipated/Critical Repairs	263,000	250,000	250,000	250,000	250,000	250,000	1,250,000
<b>Total Recurring Projects</b>	<b>14,440,000</b>	<b>11,142,000</b>	<b>9,135,000</b>	<b>8,497,000</b>	<b>14,159,000</b>	<b>14,409,000</b>	<b>57,342,000</b>
<b>Total Construction Projects</b>	<b>87,698,000</b>	<b>31,680,000</b>	<b>57,129,000</b>	<b>55,053,000</b>	<b>55,419,000</b>	<b>52,409,000</b>	<b>251,690,000</b>

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**

**Use of Funds**

	Estimated 2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	5-Year Total
<b>USE OF FUNDS (CONT'D.)</b>							
<b>Non-Construction</b>							
<b>General Non-Construction</b>							
19. City-wide and Public Works Capital Support Costs	40,000	397,000	397,000	397,000	397,000	397,000	1,985,000
20. Payment for Clean Water Financing Authority Trustee Plant Master Plan	22,000	5,000	5,000	5,000	5,000	5,000	25,000
21. Plant Master Plan	4,876,000	2,400,000					2,400,000
22. 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
23. Transfer to Clean Water Financing Authority Debt Service Payment Fund	6,981,000	6,978,000	6,960,000	6,949,000	6,951,000	6,922,000	34,760,000
<b>Total General Non-Construction</b>	<b>16,383,000</b>	<b>14,244,000</b>	<b>11,826,000</b>	<b>11,815,000</b>	<b>11,817,000</b>	<b>11,788,000</b>	<b>61,490,000</b>
<b>Contributions, Loans and Transfers to Special Funds</b>							
Transfer to the City Hall Debt Service Fund	12,000	18,000	20,000	17,000	17,000	18,000	90,000
<b>Total Contributions, Loans and Transfers to Special Funds</b>	<b>12,000</b>	<b>18,000</b>	<b>20,000</b>	<b>17,000</b>	<b>17,000</b>	<b>18,000</b>	<b>90,000</b>
<b>Reserves</b>							
Reserve for Electrical Reliability Improvements		5,305,000					5,305,000
Reserve for Equipment Replacement		5,000,000					5,000,000
Reserve for Plant Capital Replacement		36,000,000		5,000,000	7,000,000	10,000,000	58,000,000
Reserve for Plant Master Plan Improvements					5,000,000	5,000,000	10,000,000
Reserve for Rate Studies		200,000					200,000
<b>Total Reserves</b>		<b>46,505,000</b>		<b>5,000,000</b>	<b>12,000,000</b>	<b>15,000,000</b>	<b>78,505,000</b>
<b>Total Non-Construction</b>	<b>16,395,000</b>	<b>60,767,000</b>	<b>11,846,000</b>	<b>16,832,000</b>	<b>23,834,000</b>	<b>26,806,000</b>	<b>140,085,000</b>

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**

**Use of Funds**

	Estimated 2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	5-Year Total
<b>USE OF FUNDS (CONT'D.)</b>							
Ending Fund Balance	51,639,710	4,872,710	1,196,710	2,160,710	2,239,710	1,683,710	1,683,710*
<b>TOTAL USE OF FUNDS</b>	<b>155,732,710</b>	<b>97,319,710</b>	<b>70,171,710</b>	<b>74,045,710</b>	<b>81,492,710</b>	<b>80,898,710</b>	<b>393,458,710*</b>

\* The 2010-2011 through 2013-2014 Ending Balances are excluded from the FIVE-YEAR TOTAL USE OF FUNDS to avoid multiple counting of the same funds.

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**1. Public Art**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	Ongoing
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	Ongoing
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	City-wide		

**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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Public Art		645	645	275	545	504	531	501	2,356		
<b>TOTAL</b>		<b>645</b>	<b>645</b>	<b>275</b>	<b>545</b>	<b>504</b>	<b>531</b>	<b>501</b>	<b>2,356</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	645	645	275	545	504	531	501	2,356
<b>TOTAL</b>	<b>645</b>	<b>645</b>	<b>275</b>	<b>545</b>	<b>504</b>	<b>531</b>	<b>501</b>	<b>2,356</b>

**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.

<b>FY Initiated:</b>	Ongoing	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>		<b>SNI Area:</b>	N/A
<b>Appn. #:</b>	5957	<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**2. Advanced Process Control and Automation**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2010
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	2nd Qtr. 2015
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	Water Pollution Control Plant		

**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.

**Justification:** This project is necessary to improve operational and equipment reliability and operational efficiencies, and to provide accurate data for engineering analyses. The meter validation and replacement component of the project is necessary to improve metering accuracies required for reliable operation.

**EXPENDITURE SCHEDULE (000'S)**

Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Equipment							1,150	1,150	2,300		2,300
Planning and Engineering				1,940	2,440	1,440	1,440	1,440	8,700		8,700
<b>TOTAL</b>				<b>1,940</b>	<b>2,440</b>	<b>1,440</b>	<b>2,590</b>	<b>2,590</b>	<b>11,000</b>		<b>11,000</b>

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund				1,940	2,440	1,440	2,590	2,590	11,000		11,000
<b>TOTAL</b>				<b>1,940</b>	<b>2,440</b>	<b>1,440</b>	<b>2,590</b>	<b>2,590</b>	<b>11,000</b>		<b>11,000</b>

**ANNUAL OPERATING BUDGET IMPACT (000'S)**

None

**Major Changes in Project Cost:**

None

**Notes:**

This project assumes the addition of four temporary positions in 2010-2011, with possible extensions in the following four years.

<b>FY Initiated:</b>	2010-2011	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$11,000,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>		<b>USGBC LEED:</b>	N/A

# Water Pollution Control

## 2011-2015 Proposed Capital Improvement Program

### Detail of Construction Projects

### 3. Digester Rehabilitation

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

**Description:** This project will include structural rehabilitation of four digesters to address cracks in the existing concrete digestion tanks. This project will also include mechanical rehabilitation and/or replacement to restore and enhance digester performance and facilitate the addition of a receiving station for digesting fats, oils, and grease. Additionally, this project will include replacing existing digester gas lines and digested sludge lines. This project will 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 due to structural damage and lack of adequate mixing capability, leaving only the minimum number in operation. The remaining digesters, while still in operation, 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 requested to rehabilitate additional aging digesters.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design				1,000		1,000			2,000		2,000
Construction		2,189	2,189		30,000		29,000	1,000	60,000		62,189
TOTAL		2,189	2,189	1,000	30,000	1,000	29,000	1,000	62,000		64,189

FUNDING SOURCE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
San José-Santa Clara Treatment Plant Capital Fund		2,189	2,189	1,000	30,000	1,000	29,000	1,000	62,000		64,189
TOTAL		2,189	2,189	1,000	30,000	1,000	29,000	1,000	62,000		64,189

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 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.

**Notes:**

This project replaces the Scum Digestion project. This project assumes the addition of three temporary positions in 2010-2011, with possible extensions for the following four years, dependent on technical services required as the project progresses.

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**4. East Primary Concrete Tank Repair and Stainless Steel Conversion**

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

**Description:** This project will include rehabilitation of existing primary clarifiers, including coating of concrete and replacement of clarifier mechanisms with corrosion resistant materials.

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

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Construction				1,684	1,821	100			3,605		3,605
<b>TOTAL</b>				<b>1,684</b>	<b>1,821</b>	<b>100</b>			<b>3,605</b>		<b>3,605</b>
FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund				1,684	1,821	100			3,605		3,605
<b>TOTAL</b>				<b>1,684</b>	<b>1,821</b>	<b>100</b>			<b>3,605</b>		<b>3,605</b>
ANNUAL OPERATING BUDGET IMPACT (000'S)											
<b>None</b>											

**Major Changes in Project Cost:**

None

**Notes:**

The East Primary Concrete Tank Repair and Stainless Steel Conversion is proposed to become 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.

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



**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**5. Fine Bubble Membrane Diffuser Conversion**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2010
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	2nd Qtr. 2022
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	Water Pollution Control Plant		

**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.

**Justification:** The Plant's aeration system, which is used to provide oxygen for the activated sludge process, accounts for a large portion of the plant's overall energy usage, and as such, has been a primary focus of energy-saving efforts. Over the last several years, the existing coarse air piping and diffuser systems at approximately half of the plant's aeration basins have been replaced with fine bubble diffuser systems which require much less energy to operate. After the new technology is installed, it will assist the WPCP in achieving its goal of energy self sufficiency by 2022.

**EXPENDITURE SCHEDULE (000'S)**

Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Development				750	1,500				2,250		2,250
Design						1,200	50		1,250		1,250
Construction								4,300	4,300	21,500	25,800
<b>TOTAL</b>				<b>750</b>	<b>1,500</b>	<b>1,200</b>	<b>50</b>	<b>4,300</b>	<b>7,800</b>	<b>21,500</b>	<b>29,300</b>

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	750	1,500	1,200	50	4,300	7,800	21,500	29,300
<b>TOTAL</b>	<b>750</b>	<b>1,500</b>	<b>1,200</b>	<b>50</b>	<b>4,300</b>	<b>7,800</b>	<b>21,500</b>	<b>29,300</b>

**ANNUAL OPERATING BUDGET IMPACT (000'S)**

None

**Major Changes in Project Cost:**

None

**Notes:**

This project assumes the addition of three temporary positions in 2010-2011, with possible extensions for the two following years, dependent on pilot testing staffing needs.

<b>FY Initiated:</b>	2010-2011	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$29,300,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>		<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**6. Fuel Cell**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr 2010
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	4th Qtr. 2011
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	Water Pollution Control Plant		

**Description:** This project will construct 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 itself will be 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.

**Justification:** The WPCP generates its own electricity with engine generators, using methane gas and natural gas as fuel sources. The WPCP also purchases electricity from PG&E, to meet total power demand. By providing the necessary utility connections for the fuel cell described above, this project will enable the generation of additional renewable energy using available methane gas and result in less dependence by the WPCP on the power grid, reducing the WPCP's demand for electricity purchased from PG&E. Energy savings will be realized once negotiations on the Power Purchase Agreement contract have concluded.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Construction				1,326	25				1,351		1,351
<b>TOTAL</b>				<b>1,326</b>	<b>25</b>				<b>1,351</b>		<b>1,351</b>

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund				1,326	25				1,351		1,351
<b>TOTAL</b>				<b>1,326</b>	<b>25</b>				<b>1,351</b>		<b>1,351</b>

**ANNUAL OPERATING BUDGET IMPACT (000'S)**

None

**Major Changes in Project Cost:**

None

**Notes:**

The Fuel Cell project became a stand-alone project in 2010-2011. Prior to this, it was part of the Plant Infrastructure Improvements allocation.

<b>FY Initiated:</b>	2010-2011	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$1,351,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>		<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**7. Headworks Enhancement**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2009
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	4th Qtr. 2011
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	3rd Qtr. 2012
<b>Location:</b>	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 will include 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 would include adding gates and piping connections between existing junction structures to reroute flows, and constructing a new septage receiving station.

**Justification:** This project will allow 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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design		500	500								500
Construction				4,000	518	145			4,663		4,663
<b>TOTAL</b>		<b>500</b>	<b>500</b>	<b>4,000</b>	<b>518</b>	<b>145</b>			<b>4,663</b>		<b>5,163</b>

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	500	500	4,000	518	145			4,663		5,163
<b>TOTAL</b>	<b>500</b>	<b>500</b>	<b>4,000</b>	<b>518</b>	<b>145</b>			<b>4,663</b>		<b>5,163</b>

**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.

**Notes:**

<b>FY Initiated:</b>	2009-2010	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$4,000,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>	7073	<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**8. Inactive Lagoons Bio-Solids Removal**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2002
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	3rd Qtr. 2010
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	2nd Qtr. 2008
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	2nd Qtr. 2022
<b>Location:</b>	Water Pollution Control Plant		

**Description:** The Residual Sludge Management facility has inactive lagoons containing about 320,000 dry tons of toxic bio-solids 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.

**Justification:** It is recommended that this project be reactivated in order to avoid higher disposal costs in the future, when environmental regulations may become more cumbersome. This project will also allow for this land to eventually be used for alternative purposes.

**EXPENDITURE SCHEDULE (000'S)**

Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Development				875	240				1,115		1,115
Construction						3,000	3,000	3,000	9,000		9,000
<b>TOTAL</b>				<b>875</b>	<b>240</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>10,115</b>		<b>10,115</b>

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	875	240	3,000	3,000	3,000	10,115	10,115
<b>TOTAL</b>	<b>875</b>	<b>240</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>	<b>10,115</b>	<b>10,115</b>

**ANNUAL OPERATING BUDGET IMPACT (000'S)**

None

**Major Changes in Project Cost:**

2005-2009 CIP - decrease of \$2.5 million to reflect re-scoping of this project to cover the reevaluation of alternatives for the proper disposal of toxic bio-solids.

2007-2011 CIP - decrease of \$1.8 million to shift funding for Bio-Solids removal to the Reserve for Bio-Solids Plans.

2011-2015 CIP - Increase of \$9.9 million to reflect the latest cost estimate for reactivating the program.

**Notes:**

This project was previously part of an ongoing allocation titled "Residual Sludge Facilities," and has also previously been titled "Inactive Lagoons Bio-Solids Removal Study." The project was initiated in 2003-2004, but was deferred a number of times and funding was decreased over the years. This project assumes the addition of one temporary position in 2010-2011, with possible extensions in the following five years, dependent on technical services required as the project progresses. Funding for the disposal contracts will be encumbered within the five years of the CIP, however, depending on the method of disposal that is selected, operations may continue until the 2nd Quarter of 2022. The completion date may be further revised, as options for disposal are evaluated.

<b>FY Initiated:</b>	2003-2004	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$4,500,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>	4931	<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**9. Iron Salt Feed Station**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2010
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	2nd Qtr. 2012
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design				340					340		340
Construction					2,000				2,000		2,000
<b>TOTAL</b>				<b>340</b>	<b>2,000</b>				<b>2,340</b>		<b>2,340</b>

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	340	2,000							2,340		2,340
<b>TOTAL</b>	<b>340</b>	<b>2,000</b>							<b>2,340</b>		<b>2,340</b>

**ANNUAL OPERATING BUDGET IMPACT (000'S)**

None

**Major Changes in Project Cost:**

None

**Notes:**

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**10. Plant Electrical Reliability**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	3rd Qtr. 2003
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	2nd Qtr. 2015
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	4th Qtr. 2015
<b>Location:</b>	Water Pollution Control Plant		

**Description:** This project will include a multi-phase construction schedule based upon a study completed in 2004. The project will replace substations and switches, modify power distribution buses and cabling, and provide backup systems to enhance the overall safety and reliability of the Plant electrical systems.

**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 will address immediate safety needs, as well as provide for future reliability needs.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design	3,555			3,000	2,200	2,000	2,300	1,000	10,500		14,055
Construction		23,015	23,015	400		34,000		20,000	54,400	205	77,620
TOTAL	3,555	23,015	23,015	3,400	2,200	36,000	2,300	21,000	64,900	205	91,675

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund	3,555	23,015	23,015	3,400	2,200	36,000	2,300	21,000	64,900	205	91,675
TOTAL	3,555	23,015	23,015	3,400	2,200	36,000	2,300	21,000	64,900	205	91,675

**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 million to reflect a project scope change.  
 2011-2015 CIP - increase of \$11.4 million due to increased project scope.

**Notes:**

Replaces a formerly ongoing allocation titled "Electrical System Improvements".

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**11. Secondary and Nitrification Clarifier Rehabilitation**

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

**Description:** This project will include 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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Development				1,501	1,658				3,159		
Design						400			400		
Construction		1,000	1,000	2,200			2,400	220	4,820		
<b>TOTAL</b>		<b>1,000</b>	<b>1,000</b>	<b>3,701</b>	<b>1,658</b>	<b>400</b>	<b>2,400</b>	<b>220</b>	<b>8,379</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund		1,000	1,000	3,701	1,658	400	2,400	220	8,379		
<b>TOTAL</b>		<b>1,000</b>	<b>1,000</b>	<b>3,701</b>	<b>1,658</b>	<b>400</b>	<b>2,400</b>	<b>220</b>	<b>8,379</b>		

**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 assumes the addition of one temporary position in 2010-2011, with possible extensions in the following four years, dependent on development needs for clarifier designs.

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**12. Warehousing Facility Additions**

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

**Description:** This project will include an assessment of inventory storage needs and provide for covered storage facilities for spare equipment, parts, and materials used in wastewater treatment.

**Justification:** This project will allow for equipment, parts, and materials that are currently stored in the open to be stored in a centralized covered area.

EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design				300					300		300
Construction					1,500				1,500		1,500
<b>TOTAL</b>				<b>300</b>	<b>1,500</b>				<b>1,800</b>		<b>1,800</b>

FUNDING SOURCE SCHEDULE (000'S)											
San José-Santa Clara Treatment Plant Capital Fund				300	1,500				1,800		1,800
<b>TOTAL</b>				<b>300</b>	<b>1,500</b>				<b>1,800</b>		<b>1,800</b>

ANNUAL OPERATING BUDGET IMPACT (000'S)											
None											

**Major Changes in Project Cost:**

None

**Notes:**

<b>FY Initiated:</b>	2010-2011	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>	\$1,800,000	<b>SNI Area:</b>	N/A
<b>Appn. #:</b>		<b>USGBC LEED:</b>	N/A



**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**13. Dissolved Air Flotation Dissolution Improvements**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	4th Qtr. 2010
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	1st Qtr. 2012
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design			298						298		298
Construction				1,158	23				1,181		1,181
<b>TOTAL</b>			<b>298</b>	<b>1,158</b>	<b>23</b>				<b>1,479</b>		<b>1,479</b>

FUNDING SOURCE SCHEDULE (000'S)											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
San José-Santa Clara Treatment Plant Capital Fund			298	1,158	23				1,479		1,479
<b>TOTAL</b>			<b>298</b>	<b>1,158</b>	<b>23</b>				<b>1,479</b>		<b>1,479</b>

ANNUAL OPERATING BUDGET IMPACT (000'S)										
<b>None</b>										

**Major Changes in Project Cost:**

None

**Notes:**

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**14. Filter Improvements**

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

**Description:** This project will include replacement of existing filter underdrain system with a new type of underdrain technology, and the existing dual-media and with a single media type (monomedia). Initially, one of the 16 filter bays will 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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Design				200					200		
Construction					2,000	2,355	1,000	1,000	6,355		
<b>TOTAL</b>				<b>200</b>	<b>2,000</b>	<b>2,355</b>	<b>1,000</b>	<b>1,000</b>	<b>6,555</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	200	2,000	2,355	1,000	1,000	6,555
<b>TOTAL</b>	<b>200</b>	<b>2,000</b>	<b>2,355</b>	<b>1,000</b>	<b>1,000</b>	<b>6,555</b>

**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 is proposed to become a stand alone project in 2010-2011. Previously, it was part of the Plant Infrastructure Improvements allocation.

<b>FY Initiated:</b>	Ongoing	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>		<b>SNI Area:</b>	N/A
<b>Appn. #:</b>		<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**15. Revised South Bay Action Plan - SBWR Extension**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	Ongoing
<b>CSA Outcome:</b>	Healthy Streams, Rivers, Marsh and Bay	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	Ongoing
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	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 will fund the development and future construction of an advanced water treatment facility in partnership with the Santa Clara Valley Water District. In addition, this allocation funds future recycled water projects not yet identified.

**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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Development											
Design											
Construction		23,983	23,983	389	389	389	389	389	1,945		
<b>TOTAL</b>		<b>23,983</b>	<b>23,983</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>1,945</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	23,983	23,983	389	389	389	389	389	389	1,945
<b>TOTAL</b>	<b>23,983</b>	<b>23,983</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>389</b>	<b>1,945</b>

**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. A \$389,000 annual allocation beginning in 2005-2006 represents recycled water pipeline funding from Calpine for their share of the pipeline to the Metcalf Energy Center. This allocation is anticipated to fund future recycled water projects.

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**16. Equipment Replacement**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	Ongoing
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	Ongoing
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Equipment		7,074	7,074	2,420	1,846	3,883	1,525	1,525	11,199		
<b>TOTAL</b>		<b>7,074</b>	<b>7,074</b>	<b>2,420</b>	<b>1,846</b>	<b>3,883</b>	<b>1,525</b>	<b>1,525</b>	<b>11,199</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	7,074	7,074	2,420	1,846	3,883	1,525	1,525	11,199
<b>TOTAL</b>	<b>7,074</b>	<b>7,074</b>	<b>2,420</b>	<b>1,846</b>	<b>3,883</b>	<b>1,525</b>	<b>1,525</b>	<b>11,199</b>

**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.

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**17. Plant Infrastructure Improvements**

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

**Description:** This allocation provides for improvements, rehabilitation, or replacement of existing Plant infrastructure and fixed works; process facilities; buildings, structures and supporting facilities; piping and auxiliaries; instrumentation; and electrical generation, distribution and control systems.

**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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Construction		8,204	7,103	8,472	7,039	4,364	12,384	12,634	44,893		
<b>TOTAL</b>		<b>8,204</b>	<b>7,103</b>	<b>8,472</b>	<b>7,039</b>	<b>4,364</b>	<b>12,384</b>	<b>12,634</b>	<b>44,893</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	8,204	7,103	8,472	7,039	4,364	12,384	12,634	44,893
<b>TOTAL</b>	<b>8,204</b>	<b>7,103</b>	<b>8,472</b>	<b>7,039</b>	<b>4,364</b>	<b>12,384</b>	<b>12,634</b>	<b>44,893</b>

**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.

Prior to 2010-2011, the Fuel Cell project accounted for \$1.24 million of the Plant Infrastructure Improvements project. In the 2011-2015 CIP, the Fuel Cell project was broken out into a stand alone project.

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

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Construction Projects**

**18. Unanticipated/Critical Repairs**

<b>CSA:</b>	Environmental and Utility Services	<b>Initial Start Date:</b>	Ongoing
<b>CSA Outcome:</b>	Reliable Utility Infrastructure	<b>Revised Start Date:</b>	
<b>Department:</b>	Environmental Services	<b>Initial Completion Date:</b>	Ongoing
<b>Council District:</b>	4	<b>Revised Completion Date:</b>	
<b>Location:</b>	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	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Construction		263	263	250	250	250	250	250	1,250		
<b>TOTAL</b>		<b>263</b>	<b>263</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>1,250</b>		

**FUNDING SOURCE SCHEDULE (000'S)**

San José-Santa Clara Treatment Plant Capital Fund	263	263	250	250	250	250	250	250	1,250		
<b>TOTAL</b>	<b>263</b>	<b>263</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>1,250</b>		

**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.

<b>FY Initiated:</b>	Ongoing	<b>Redevelopment Area:</b>	N/A
<b>Initial Project Budget:</b>		<b>SNI Area:</b>	N/A
<b>Appn. #:</b>	5691	<b>USGBC LEED:</b>	N/A

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Non-Construction Projects**

**19. City-wide and Public Works Capital Support Costs**

**CSA:** Environmental and Utility Services  
**CSA Outcome:** Reliable Utility Infrastructure  
**Department:** Public Works  
**Description:** This allocation funds city-wide capital program support costs which include support for the Capital Project Management System, labor compliance review, performance measurement reporting, and updates of policies and specifications; and, Public Works Department capital project delivery costs which include management, staff and technical support, fiscal services, and procurement services.

<b>EXPENDITURE SCHEDULE (000'S)</b>											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Program Management		5	40	397	397	397	397	397	1,985		
<b>TOTAL</b>		<b>5</b>	<b>40</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>1,985</b>		

<b>FUNDING SOURCE SCHEDULE (000'S)</b>											
San José-Santa Clara Treatment Plant Capital Fund		5	40	397	397	397	397	397	1,985		
<b>TOTAL</b>		<b>5</b>	<b>40</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>397</b>	<b>1,985</b>		

**Notes:**  
 Selected budget information is not provided due to the ongoing nature of this project.  
**Appn. #:** 6000

**20. 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.

<b>EXPENDITURE SCHEDULE (000'S)</b>											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Program Management		22	22	5	5	5	5	5	25		
<b>TOTAL</b>		<b>22</b>	<b>22</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>25</b>		

<b>FUNDING SOURCE SCHEDULE (000'S)</b>											
San José-Santa Clara Treatment Plant Capital Fund		22	22	5	5	5	5	5	25		
<b>TOTAL</b>		<b>22</b>	<b>22</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>25</b>		

**Notes:**  
 Selected budget information is not provided due to the ongoing nature of this project.  
**Appn. #:** 6584

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Non-Construction Projects**

**21. Plant Master Plan**

**CSA:** Environmental and Utility Services  
**CSA Outcome:** Healthy Streams, Rivers, Marsh and Bay  
**Department:** Environmental Services  
**Description:** The Plant Master Plan (PMP) will provide San José/Santa Clara Water Pollution Control Plant with a phased program of recommended wastewater treatment facilities and management programs to accommodate planned growth and to meet existing and anticipated regulatory requirements through the year 2040. The PMP will need to address both public health and environmental protection issues while ensuring reliable service at affordable rates for area customers.

<b>EXPENDITURE SCHEDULE (000'S)</b>											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Master Plan/Study	572	4,876	4,876	2,400					2,400		7,848
<b>TOTAL</b>	<b>572</b>	<b>4,876</b>	<b>4,876</b>	<b>2,400</b>					<b>2,400</b>		<b>7,848</b>

<b>FUNDING SOURCE SCHEDULE (000'S)</b>											
San José-Santa Clara Treatment Plant Capital Fund	572	4,876	4,876	2,400					2,400		7,848
<b>TOTAL</b>	<b>572</b>	<b>4,876</b>	<b>4,876</b>	<b>2,400</b>					<b>2,400</b>		<b>7,848</b>

**Notes:**  
This project was formerly titled "Bio-solids Master Plan."  
**Appn. #:** 4120

**22. 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.

<b>EXPENDITURE SCHEDULE (000'S)</b>											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Debt Service	41,348	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	22,320	90,452
<b>TOTAL</b>	<b>41,348</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>22,320</b>	<b>22,320</b>	<b>90,452</b>

<b>FUNDING SOURCE SCHEDULE (000'S)</b>											
San José-Santa Clara Treatment Plant Capital Fund	41,348	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	22,320	90,452
<b>TOTAL</b>	<b>41,348</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>4,464</b>	<b>22,320</b>	<b>22,320</b>	<b>90,452</b>

**Appn. #:** 6590



**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Detail of Non-Construction Projects**

**23. Transfer to Clean Water Financing Authority Debt Service Payment Fund**

**CSA:** Environmental and Utility Services  
**CSA Outcome:** Healthy Streams, Rivers, Marsh and Bay  
**Department:** Environmental Services  
**Description:** This funding provides for the payment of the 1995 Series A and B Revenue Bonds. The moneys are transferred to the Clean Water Financing Authority Debt Service Payment Fund.

<b>EXPENDITURE SCHEDULE (000'S)</b>											
Cost Elements	Prior Years	2009-10 Appn.	2009-10 Estimate	2010-11	2011-12	2012-13	2013-14	2014-15	5-Year Total	Beyond 5-Year	Project Total
Debt Service	14,881	6,981	6,981	6,978	6,960	6,949	6,951	6,922	34,760	31,724	88,346
<b>TOTAL</b>	<b>14,881</b>	<b>6,981</b>	<b>6,981</b>	<b>6,978</b>	<b>6,960</b>	<b>6,949</b>	<b>6,951</b>	<b>6,922</b>	<b>34,760</b>	<b>31,724</b>	<b>88,346</b>

<b>FUNDING SOURCE SCHEDULE (000'S)</b>											
San José-Santa Clara Treatment Plant Capital Fund	14,881	6,981	6,981	6,978	6,960	6,949	6,951	6,922	34,760	31,724	88,346
<b>TOTAL</b>	<b>14,881</b>	<b>6,981</b>	<b>6,981</b>	<b>6,978</b>	<b>6,960</b>	<b>6,949</b>	<b>6,951</b>	<b>6,922</b>	<b>34,760</b>	<b>31,724</b>	<b>88,346</b>

**Appn. #:** 0005

# Water Pollution Control

## 2011-2015 Proposed Capital Improvement Program

### Summary of Projects that Start after 2010-2011

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<b>Project Name:</b>	Headworks No. 2 Expansion	<b>Initial Start Date:</b>	3rd Qtr. 2014
<b>5-Year CIP Budget:</b>	\$4,000,000	<b>Revised Start Date:</b>	
<b>Total Budget:</b>	\$133,600,000	<b>Initial End Date:</b>	1st Qtr. 2022
<b>Council District:</b>	4	<b>Revised End Date:</b>	
<b>USGBC LEED:</b>	N/A		

**Description:** The Plant has two headworks facilities: Headworks No. 1 (HW1), which was built in the mid-1950s and early 1960s, and Headworks No. 2 (HW2), which was built in 2008. These two headworks, operating in parallel, currently provide a peak wet weather flow capacity of 400 million gallons per day (mgd). This project will expand the peak wet weather capacity of HW2 alone to 400 mgd and allow HW2 to function as the sole headworks facility and HW1 to be decommissioned.

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**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Summary of Reserves**

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<b>Project Name:</b>	<b>Reserve for Electrical Reliability Improvements</b>	<b>Initial Start Date:</b>	N/A
<b>5-Year CIP Budget:</b>	\$5,305,000	<b>Revised Start Date:</b>	
<b>Total Budget:</b>	\$5,305,000	<b>Initial End Date:</b>	N/A
<b>Council District:</b>	4	<b>Revised End Date:</b>	
<b>USGBC LEED:</b>	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.

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

**Description:** This reserve provides for the replacement and rehabilitation of equipment which, due to age, wear, or obsolescence, must be replaced for the efficient operation of the WPCP. Reserved funds are available to pay for unforeseen extraordinary costs to the extent that there are no other funds budgeted for such purposes.

<b>Project Name:</b>	<b>Reserve for Plant Capital Replacement</b>	<b>Initial Start Date:</b>	N/A
<b>5-Year CIP Budget:</b>	\$58,000,000	<b>Revised Start Date:</b>	
<b>Total Budget:</b>	\$58,000,000	<b>Initial End Date:</b>	N/A
<b>Council District:</b>	4	<b>Revised End Date:</b>	
<b>USGBC LEED:</b>	N/A		

**Description:** This reserve sets aside funding for future WPCP projects.

<b>Project Name:</b>	<b>Reserve for Plant Master Plan Improvements</b>	<b>Initial Start Date:</b>	N/A
<b>5-Year CIP Budget:</b>	\$10,000,000	<b>Revised Start Date:</b>	
<b>Total Budget:</b>	\$10,000,000	<b>Initial End Date:</b>	N/A
<b>Council District:</b>	4	<b>Revised End Date:</b>	
<b>USGBC LEED:</b>	N/A		

**Description:** This reserve sets funds aside for projects arising out of the Plant Master Plan.

**Water Pollution Control**  
**2011-2015 Proposed Capital Improvement Program**  
**Summary of Reserves**

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

**Description:** This funding provides a reserve for the study and review of rate structures within the industry.

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# PROPOSED

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

700 Los Esteros Road  
San Jose, California 95134

**2010 – 2011**

### **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
Nora Campos		Councilmember, City of San Jose
John Gatto		Boardmember, Cupertino Sanitary District
Bob Livengood		Mayor, City of Milpitas
Patricia Mahan		Mayor, City of Santa Clara
Kevin Moore		Councilmember, City of Santa Clara
Madison, Nguyen		Councilmember, City of San Jose
Kenneth Yeager		Boardmember, West Valley Sanitation District
Ed Shikada		Deputy City Manager, City of San Jose



# Memorandum

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**TO: TREATMENT PLANT ADVISORY  
COMMITTEE**

**FROM: John Stufflebean**

**SUBJECT: 2010-2011 PROPOSED  
TREATMENT PLANT BUDGET**

**DATE: May 5, 2010**

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This memorandum serves to transmit the 2010-11 Proposed Operating and Capital Budgets for the Environmental Services Department and the Treatment Plant.

We hope you find this report informative and if you should have any further questions, please contact Dale Ihrke 408-945-5198.

JOHN STUFFLEBEAN  
Director, Environmental Services Department

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

700 Los Esteros Road  
San Jose, California 95134

**2010-2011**

**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**

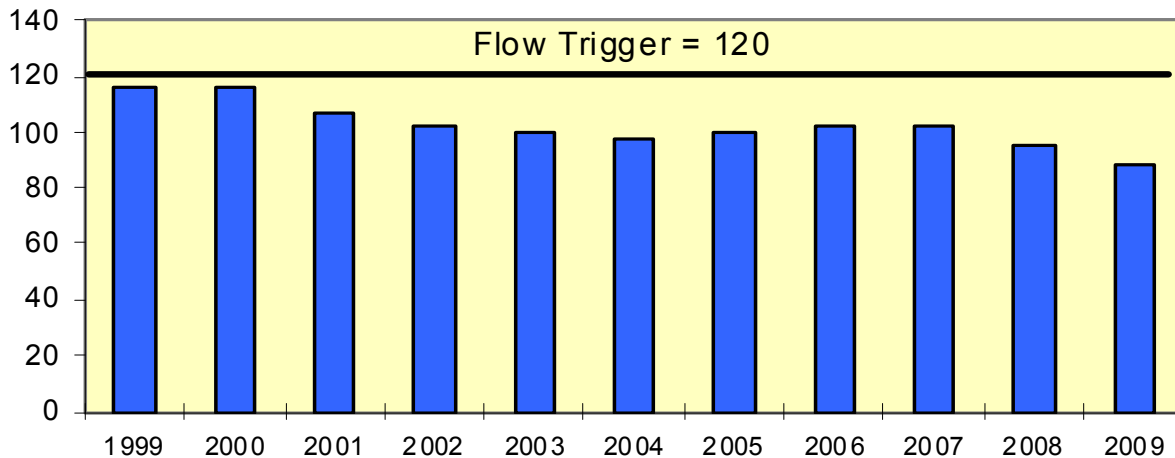
	Adopted 09-10	Proposed 10-11	Change
Treatment Plant Operating Fund Budget	79,940,062	78,425,212	(1.9%)
ESD Authorized Positions	363.27	352.75	(2.9%)

**BUDGET HIGHLIGHTS 2010-2011**

- Additional resources to address succession planning and comprehensive staff training programs are recommended for 2010-2011.
- The addition of a temporary air regulations specialist is recommended to resolve air quality regulation compliance issues.
- Continued funding for the final year of Plant Master Plan support is included for 2010-2011.
- Program efficiencies and city-wide changes to business strategies have allowed for a net reduction of 10.52 employees within this fund.



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



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

**TREATMENT PLANT OPERATING FUND  
 BUDGET SUMMARY**

<b>Fund Budget Summary</b>	2008-09 Actual Expenses	2009-10 Adopted Budget	2010-11 Forecast Budget	2010-11 Proposed Budget
<b>Operating Expenses</b>				
Personal Services	37,965,975	41,279,415	43,049,423	43,325,189
Non-personal Expenses	23,948,598	27,395,304	24,061,354	24,177,618
Inventory	348,669	400,000	400,000	400,000
Overhead	4,122,965	7,116,770	7,101,135	7,407,609
NCH Debt Service	722,932	625,450	625,450	886,403
GASB (43/45)	95,271	117,345	0	0
Workers' Compensation	183,147	696,150	696,150	700,000
City Services	648,859	524,628	475,419	685,393
<b>Total Operating Expenses</b>	<b>68,036,416</b>	<b>78,155,062</b>	<b>76,408,931</b>	<b>77,582,212</b>
<b>Other Expenses</b>				
Equipment	1,120,271	1,785,000	825,000	843,000
Contingency	0	0	1,700,000	0
<b>TOTAL EXPENSES</b>	<b>\$69,156,687</b>	<b>\$79,940,062</b>	<b>\$78,933,931</b>	<b>\$78,425,212</b>

**ESTIMATED COST DISTRIBUTION**

2010-11 Estimated Total Gallons Treated (MG)	(1) Percent of Total Sewage Treated	City / District	2010-11 Projected
25,045.866	64.729	City of San Jose (3)	\$50,763,855
4,799.911	13.483	City of Santa Clara	10,574,071
<b>29,845.777</b>	<b>78.212</b>	<b>Sub-Total</b>	<b>\$61,337,926</b>
3,420.133	9.015	West Valley Sanitation District	7,070,033
1,898.666	4.857	Cupertino Sanitary District	3,809,113
2,409.963	6.223	City of Milpitas	4,880,401
512.663	1.395	Sanitation District # 2 - 3	1,094,032
109.932	0.298	Burbank Sanitary District	233,707
<b>8,351.357</b>	<b>21.788</b>	<b>Sub-Total</b>	<b>\$17,087,286</b>
<b>38,197.134</b>	<b>100.0</b>	<b>TOTAL</b>	<b>\$78,425,212</b>

(1) Composite of four parameters (flow, BOD, SS, ammonia). Source 2010-11 Revenue Program.

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

**OVERVIEW**

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**T**his year's TPAC Budget continues to reflect the funding allocations by core service, in accordance with the City's Investing in Results Program. As previously reported, the Environmental Services Department has six core services:

- |  |  |
|--|--|
| <input type="checkbox"/> <b>Wastewater Management</b>          | <input type="checkbox"/> <b>Potable Water Delivery</b>         |
| <input type="checkbox"/> <b>Recycled Water Management</b>      | <input type="checkbox"/> <b>Natural &amp; Energy Resources</b> |
| <input type="checkbox"/> <b>Stormwater Management</b>          | <input type="checkbox"/> <b>Protection</b>                     |
| <input type="checkbox"/> <b>Recycling and Garbage Services</b> |  |

The three core services that receive funding from the Treatment Plant Operating Fund are Wastewater Management, Recycled Water Management, and Natural & Energy Resources Protection. Through the Natural & Energy Resources Protection core service, the Department's water conservation programs assist and conduct outreach to businesses and residents in an effort to promote water conservation and thereby reduce the flow of wastewater to the Water Pollution Control Plant. The Recycled Water Management core service diverts treated Plant effluent from the Bay to agricultural, landscaping, and other uses. The Wastewater Management core service funds all maintenance and operations functions of the Plant, as well as the Laboratory, Source Control Program, and permit development and compliance.

In addition to these three core services, the Treatment Plant Operating Fund also funds a portion of Strategic Support services which provide administrative services to all core service programs within the Department. These services include public education, long range planning, financial management, computer services, clerical support, employee services, and legislative research and advocacy.

The 2010-2011 Proposed Treatment Plant Operating Fund Budget recommends a decrease of 1.9% over the 2009-2010 Adopted Budget. This decrease reflects both the greater than usual one-time funding from 2009-2010 and the re-budgeting of funds from 2008-2009. Also included in the proposed budget are the non-personal budget decreases related to energy as natural-gas prices remain low compared to previous year averages; and recently completed energy projects continue to reduce consumption.

Offsetting these decreases are proposed additions which include funding for: increased chemical costs in response to the conversion to liquid chlorine disinfection, 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 a breakdown by core service of all associated costs and budget proposals.

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

**OVERVIEW CONTINUED**

**BUDGET SUMMARY**

<b>Department Budget Summary</b>	2008-09 Actual 1	2009-10 Adopted 2	2010-11 Forecast 3	2010-11 Proposed 4	% Change (2 to 4)
<b>Dollars by Core Services</b>					
Manage Wastewater	\$ 55,167,913	\$ 60,546,289	\$ 57,889,141	\$ 58,512,918	(3.4%)
Manage Recycled Water	\$ 3,100,079	\$ 4,243,853	\$ 4,195,263	\$ 4,140,527	(2.4%)
Protect Natural & Energy Resources	\$ 637,653	\$ 1,739,661	\$ 1,184,222	\$ 1,184,222	(31.9%)
Strategic Support	\$ 4,129,199	\$ 3,929,916	\$ 4,667,151	\$ 4,508,140	14.7%
<b>Total</b>	<b>\$ 63,034,844</b>	<b>\$ 70,459,719</b>	<b>\$ 67,935,777</b>	<b>\$ 68,345,807</b>	<b>(3.0%)</b>
<b>Dollars by Category</b>					
Personal Services					
Salaries/Benefits	\$ 36,710,033	\$ 40,627,749	\$ 42,397,757	\$ 42,673,523	5.0%
Overtime	\$ 1,255,942	\$ 651,666	\$ 651,666	\$ 651,666	0.0%
Subtotal	\$ 37,965,975	\$ 41,279,415	\$ 43,049,423	\$ 43,325,189	5.0%
Non-personal/Equipment	\$ 25,068,869	\$ 29,180,304	\$ 24,886,354	\$ 25,020,618	(14.3%)
<b>Total</b>	<b>\$ 63,034,844</b>	<b>\$ 70,459,719</b>	<b>\$ 67,935,777</b>	<b>\$ 68,345,807</b>	<b>(3.0%)</b>
<b>Authorized Positions</b>	<b>359.82</b>	<b>363.27</b>	<b>358.82</b>	<b>352.75</b>	<b>(2.9%)</b>

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

**Core Service: Wastewater Management**

## **Core Service Purpose**

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**M**anage wastewater for suitable discharge into the South San Francisco Bay and for beneficial reuse to protect the environment and public health.

**Key Operational Services:**

- |   |   |
|---|---|
| <input type="checkbox"/> <b>Source Management and Control</b>               | <input type="checkbox"/> <b>Regulatory Development and Technical Guidance</b> |
| <input type="checkbox"/> <b>Operation of Treatment System and Processes</b> | <input type="checkbox"/> <b>Process Control Monitoring</b>                    |
| <input type="checkbox"/> <b>Maintain Equipment and Facilities</b>           | <input type="checkbox"/> <b>System Improvements</b>                           |
| <input type="checkbox"/> <b>Regulatory Compliance</b>                       |   |

## **Performance and Resource Overview**

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**T**his core service's activities are primarily focused on providing wastewater treatment services to eight jurisdictions and 1.4 million residents in the South Bay, conducting industrial facility inspections, and meeting discharge requirements to ensure compliance with the City's National Pollution Discharge Elimination System (NPDES) Wastewater permit. This permit is a federally mandated document, as described under the Clean Water Act, establishing maximum pollution limits that the Plant's effluent must meet prior to its discharge to the bay. For the eighth consecutive year, ending December 31, 2009, the San José/Santa Clara Water Pollution Control Plant (Plant) has achieved 100% compliance with its permit discharge requirements. This accomplishment has earned the Plant its fourth Platinum Peak Performance Award given by the National Association of Clean Water Agencies for 100% permit compliance for five or more consecutive years. This core service was previously titled "Manage Wastewater".

Increasingly stringent air quality permit regulations resulted in one Notice of Violation (NOV) received in 2009-2010 and two more that are pending. Additional resources are recommended as part of this proposed budget to address the problematic areas of, and ensure compliance with, the air permit. New performance measures have been added for 2010-2011 to track air emissions and pollutant discharge violations.

For the past several years, the performance issue of greatest concern for this core service has been "Cost per million gallons treated." For 2009-2010, this measure is expected to drop below the 2009-2010 target after rising for several years. The lower than expected cost is due to reduced energy expenditures, which are the result of the sharp decline in natural gas prices during 2009-2010 as well as savings generated by recent energy-saving projects implemented at the Plant. Combined, these factors have led to projected energy savings of approximately \$2.5 million for 2009-2010. The lower than average natural gas prices are anticipated to continue through 2010-2011, therefore the target rate in 2010-2011 for this performance measure is lower than the 2009-2010 target price. However, annual increases in categories that include personnel costs, chemicals and supplies are expected to

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

**Core Service: Wastewater Management**

## **Performance and Resource Overview (Cont'd.)**

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partially offset the energy savings. The Plant has continued its aggressive program aimed at reducing energy costs and increasing in-house energy production. Several projects were completed in 2009-2010 including pulsed aeration, pump station optimization, and Dissolved Air Flotation (DAF) system optimization. Several other projects are in progress and are due to be completed during the next two years, including the installation of a high efficiency fuel cell, a solar energy system, and aeration improvements.







The continued decline in influent, due in large part to the economic slowdown, as well as the increasing maintenance costs associated with the aging infrastructure at the Plant are still significant factors impacting the cost of treating wastewater. Two programs have been established during the past few years to address the rapidly rising maintenance costs at the Plant. The first was the development of an asset management program to implement a comprehensive data-driven strategy to address long-term capital needs as well as daily maintenance within the Plant. The initial phase of this project, a Computerized Maintenance Management System, was implemented in July 2009 and is improving the overall maintenance effort through the change to a more comprehensive work-order system. This initial accomplishment marks the continuous development of a comprehensive and automated system that tracks and records all maintenance activities and costs associated with each area of the treatment process. Future phases, planned for the next three years, will include the stocking of expanded inventory to increase productivity by minimizing acquisition times, expanded planning and scheduling so that maintenance resources are better coordinated, and the review and analysis of all the new data collected during the work-order process to allow for the empirical analysis of asset repair and replacement policies.

The second program aimed at controlling annual maintenance costs is the Enhanced Preventive Maintenance Program, currently in the third year of a five year strategy. The Program's objective is to develop a systematic approach to ensure all assets are sufficiently maintained to meet or exceed expected life cycles. As part of this effort, dedicated personnel were added in recent years to ensure a more thorough and timely maintenance cycle for all major assets. To date, this team has completed an exhaustive inventory and begun a more aggressive preventative maintenance schedule. As this effort is incorporated with the Asset Management Program, data will become available to better quantify the benefits and provide future direction to this program.

The Plant is projected to meet or exceed the majority of its performance targets in this core service in 2009-2010. The performance measure "Millions of gallons per day discharged to the Bay during average dry weather season" is slightly below the targeted level due to an overall decline of flows to the Plant and continued recycled water usage. This measure continues to meet the Regional Water Quality Control Board's permit requirements and flow trigger of 120 million gallons per day (mgd). This is of critical importance because if average discharges from the Plant were to exceed this level during the May through October dry-weather season, the Regional Board has the authority to order a number of more stringent measures, such as a building moratorium, that could threaten the area's long-term economic growth.

**San Jose/Santa Clara Water Pollution Control Plant**  
*Environmental Services Department*  
**Core Service: Wastewater Management**

**Performance and Resource Overview (Cont'd.)**

<b>Manage Wastewater Performance Summary</b>	<b>2008-2009 Actual</b>	<b>2009-2010 Target</b>	<b>2009-2010 Estimated</b>	<b>2010-2011 Target</b>
 Millions of gallons per day discharged to the Bay during average dry weather season State order: 120 mgd or less*	91	105	88	90
 % of time pollutant discharge requirements are met or surpassed	100%	100%	100%	100%
 Number of requirement violations				
-Pollutant discharge	NEW	NEW	NEW	0
-Air emissions	NEW	NEW	NEW	0
 % of scheduled industrial inspections completed on time	99%	95%	95%	95%
 Cost per million gallons treated	\$996	\$1,020	\$975	\$999
 % of customers (permitted dischargers) satisfied or very satisfied with service, based on reliability and pre-treatment services	N/A**	90%	N/A**	90%

*Changes to Performance Measures from 2009-2010 Adopted Budget: Yes<sup>1</sup>*

\* 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 conducted in June 2008 for 2007-2008. The next survey will be conducted in June 2010, with results available in 2010-2011.

<sup>1</sup> Changes to Performance Measures from 2009-2010 Adopted Budget:

- ✘ “% of suspended solids removed” measure was deleted because the performance measure was too technical for interpretation by the public.
- + “Number of requirement violations” measure was added because each violation could result in over \$32,000 in fines per day.

<b>Activity &amp; Workload Highlights</b>	<b>2008-2009 Actual</b>	<b>2009-2010 Forecast</b>	<b>2009-2010 Estimated</b>	<b>2010-2011 Forecast</b>
Average millions of gallons per day treated	109	120	108	110
Total population in service area	1,393,538	1,406,000	1,396,803	1,399,000

*Changes to Activity & Workload Highlights from 2009-2010 Adopted Budget: Yes<sup>1</sup>*

<sup>1</sup> Changes to Activity & Workload Highlights from 2009-2010 Adopted Budget:

- ✘ “Total pounds of suspended solids removed” was deleted because the performance measure was too technical for interpretation by the public.

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

## Core Service: Wastewater Management

### Performance and Resource Overview (Cont'd.)

Manage Wastewater Resource Summary	2008-2009 Actual 1	2009-2010 Adopted 2	2010-2011 Forecast 3	2010-2011 Proposed 4	% Change (2 to 4)
<b>Core Service Budget *</b>					
Personal Services	\$ 32,135,980	\$ 35,307,927	\$ 36,093,515	\$ 36,582,216	3.6%
Non-Personal/Equipment	23,031,933	25,238,362	21,795,626	21,930,702	(13.1%)
<b>Total</b>	<b>\$ 55,167,913</b>	<b>\$ 60,546,289</b>	<b>\$ 57,889,141</b>	<b>\$ 58,512,918</b>	<b>(3.4%)</b>
<b>Authorized Positions</b>	<b>311.53</b>	<b>313.53</b>	<b>301.36</b>	<b>298.36</b>	<b>(4.8%)</b>

\* The Resource Summary includes all operating allocations within the Department that contribute to the performance of this Core Service. Note that additional resources from City-Wide, Special Funds and/or Capital Funds may also contribute to Core Service performance, yet are displayed elsewhere in other City budgets.

### Budget Changes By Core Service

Proposed Core Service Changes	Positions	Treatment Plant Appropriations
<b>1. Environmental Services Custodial Services</b>	<b>(4.00)</b>	<b>(128,010)</b>
<p>This proposal would eliminate 4.0 filled Custodian positions at the Water Pollution Control Plant, and increase the contractual services budget in the San José/Santa Clara Treatment Plant Capital Fund Non-Personal/Equipment allocation by \$147,000, for a net savings of \$128,000. In accordance with Council Policy 0-41, Service Delivery Evaluation, staff undertook a business case analysis. Based on the analysis, the outsourcing of this service is recommended. Additionally, this proposal includes a recommendation that the Mayor and City Council not choose to implement the Public Private Competition Policy (Council Policy 0-29) based on the documented cost savings. To implement this proposal, staff will submit for Council consideration an amendment to the existing contract in June 2010 to allow for the transition of the service to the existing contract effective August 1. To ensure the best pricing and service possible, the Environmental Services Department will work with the Finance Department to issue a Request for Proposal for the entire service contract with a new contract submitted for City Council consideration by January 2011. The remaining Senior Custodian position will monitor the performance of the contractual staff. (Ongoing savings: \$153,875)</p> <p><b>Performance Results:</b>  <b>Cost, Quality</b> This action reduces budgeted costs with no anticipated impact to current service levels.</p>		
<b>2. Vehicle Maintenance Staffing and Contractual Services</b>		<b>(34,188)</b>
<p>This proposal generates city-wide vehicle maintenance and operations cost savings by reducing personnel and contractual services. In terms of the Environmental Services Department's, San José/Santa Clara Treatment Plant Operating Fund, the annual savings expected is \$34,188 in the Wastewater Management Core Service, and \$812 in the Recycled Water Management Core Service.</p>		



# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

Core Service: Wastewater Management

## Budget Changes By Core Service (cont'd)

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Proposed Core Service Changes	Positions	Treatment Plant Appropriations
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**Performance Results:**

**Quality, Customer Satisfaction** This proposal would reduce the percentage of vehicles that are available for use by departments when needed. Customer satisfaction with the timeliness of work order completion may also decrease.

**3. Water Pollution Control Plant Training Program** **649,832**

This proposal would provide funding in the San José/Santa Clara Treatment Plant Operating Fund for three temporary Plant Mechanics and three temporary Plant Operators for one year (with the possibility of a one-year extension), one temporary Plant Shift Supervisor for one year, and one-time funding for associated equipment. Approximately 50% of the Plant's mechanical maintenance staff and 40% of staff in operator classifications will be eligible to retire in the next five years. Funding for these temporary positions would allow the Water Pollution Control Plant to establish a training program for anticipated hires, when existing staff retires. The Plant Operator and Plant Mechanic classifications are difficult to fill because only a small number of schools provide the appropriate training and there is a lack of experienced candidates who possess the required skill sets. State requirements prohibit Plant Operators from standing shift alone for their first year of training. In the past, Plant Mechanic candidates possessed journey level expertise in a variety of specialized equipment in order to be hired at the Water Pollution Control Plant, and could stand shift alone during the first year of employment. Recently, candidates with the necessary level of experience have been difficult to find. Therefore, the Plant is starting a training and apprenticeship program. The temporary Plant Shift Supervisor is needed to establish a curriculum for the program and create training materials. (Ongoing costs: \$0)

**Performance Results:**

**Cost** This action would help to avoid future increases in the cost-per-million-gallons treated by ensuring a sufficiently trained work force that can respond to all of the operations and maintenance needs, minimizing the need for additional contractual maintenance, overtime, and deferred preventative maintenance, which are more costly.

**4.Plant Air Regulations Compliance** **137,051**

This proposal would provide funding in the San José/Santa Clara Treatment Plant Operating Fund for a temporary position for one year, with the possibility of a one-year extension, to assist the Water Pollution Control Plant in complying with increasingly complex air quality regulations, which have made managing with existing resources more time consuming and difficult. The Water Pollution Control Plant operates numerous air emissions sources, such as engine blowers and generators, off-road equipment, and boilers that are regulated by the Bay Area Air Quality Management District. Expert assistance is needed to assess new regulations and plan strategies for the Plant to comply with them, perform gas emission measurements, prepare annual and semi-annual reports requiring significant engineering calculations and analysis, and perform other related tasks. (Ongoing costs: \$0)

**Performance Results:**

**Cost** This action would help to avoid the cost of penalties associated with air-permit violations and ensure complete compliance with all State and Federal regulations.

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

Core Service: Wastewater Management

## Budget Changes By Core Service (cont'd)

Proposed Core Service Changes	Positions	Treatment Plant Appropriations
<b>5. Plant Master Plan Support</b>		<b>115,129</b>
<p>This proposal would continue temporary staffing in the San José/Santa Clara Treatment Plant Operating Fund for the “Wonders of our Water Works” public tour program. This program is a key strategy for educating and engaging the community regarding the \$1.5 billion of infrastructure improvements being charted by the Plant Master Plan. Since the tours were reinstated in 2008, almost 6,500 people have attended. This funding would allow an additional 2,500 to 3,000 people to attend Plant Tours. (Ongoing costs: \$0)</p> <p><b>Performance Results:</b> <b>Quality</b> This action would build community support for necessary infrastructure improvements to ensure reliability of the wastewater treatment system. Greater public awareness of the Plant may also contribute to increased water conservation and pollution prevention efforts from residents.</p>		
<b>6. Plant Capital Staffing</b>	<b>(1.0)</b>	<b>(116,037)</b>
<p>This proposal would adjust staffing at the San José/Santa Clara Water Pollution Control Plant by deleting 2.0 vacant Electrician positions and adding 1.0 Environmental Services Program Manager and 1.0 Plant Mechanical Supervisor. These staffing adjustments would allow the Plant to undertake pilot and construction projects as part of the Plant Master Plan implementation. The Environmental Services Program Manager would provide safety and operability review during design and construction of CIP projects, assess operational issues during pilot studies, and manage the environmental considerations of CIP and pilot projects. Currently there is no position responsible for the environmental management of CIP projects, and insufficient resources to provide operability review of CIP and pilot projects. The Plant Mechanical Supervisor would provide safety and maintainability review during design and construction of CIP projects, assess long-term maintenance needs of equipment and technologies being tested, and provide historical information on the condition and maintainability of existing Plant facilities and equipment. With the ramp-up in the capital program for construction of Master Plan projects, a dedicated position is needed to perform these tasks. The two Electrician positions are no longer needed because organizational changes in two workgroups have led to less need for electrician support. (Ongoing costs: \$21,000)</p> <p><b>Performance Results:</b> <b>Cost, Quality:</b> This action would help avoid the additional costs associated with both the delay of projects and the continued cost of maintaining aging infrastructure. The assistance of these specialized and experienced engineering professionals will enable the Plant to generate higher quality designs for capital projects more quickly, which would lead to higher quality wastewater treatment.</p>		
<b>2010-2011 Proposed Core Service Changes Total</b>	<b>(5.00)</b>	<b>623,777</b>

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

## Core Service: Recycled Water Management

### Core Service Purpose

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**D**evelop, operate, and maintain a recycled water system that reduces effluent to the Bay and provides a reliable and high quality alternative water supply.

#### Key Operational Services:

- |  |   |
|--|---|
| <input type="checkbox"/> System Operations and Maintenance | <input type="checkbox"/> Education and Marketing          |
| <input type="checkbox"/> Regulatory Compliance             | <input type="checkbox"/> System Expansion and Development |
| <input type="checkbox"/> Customer Connection Services      |   |

### Performance and Resource Overview

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**T**he City's investment in South Bay Water Recycling (SBWR) supports the City's economic development goals by keeping the San José/Santa Clara Water Pollution Control Plant's discharges to South San Francisco Bay below the Regional Water Quality Control Board's discharge flow trigger of 120 million gallons per day (mgd). By providing infrastructure for, and promoting recycled water use by businesses and institutions in San José and its tributary partners, the City helps protect endangered species habitat in the South Bay and provides an alternate supply of high-quality water for a variety of uses, thereby preserving our limited drinking water supplies. SBWR strives to achieve the City's Green Vision Goal #6: *Recycle or beneficially reuse 100% of wastewater (100 mgd)*. Prior to 2010-2011, this core service was titled "Manage Recycled Water".

Performance objectives for recycled water focus on both program effectiveness (mgd, % effluent used) and program cost. In 2008-2009, SBWR delivered an average of 9 million gallons per day (mgd) to over 600 recycled water customers, reducing summer discharges to the Bay by over 14 mgd. SBWR program activities focus on two main areas: 1) increasing the total amount of recycled water used; and 2) increasing revenues and reducing program costs. The primary plan for accomplishing these goals is focused on connecting the nearly forty facilities adjacent to the existing SBWR pipeline, increasing potential demand by an additional 2 mgd, and increasing revenues. A supporting strategy involves the possibility of passing a City of San José ordinance to require new developments near the pipeline to be constructed with dual plumbing systems suitable to allow recycled water to be used indoors for flushing toilets as well as for cooling tower use. The concept of the ordinance was proposed to the Transportation and Environment Committee in September 2008 and has been presented to the development community and other stakeholders at a number of workshops and presentations in the area. Stakeholders have provided feedback on the proposed ordinance, and a revised ordinance is being prepared for a fall 2010 presentation to the City Council.

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

Core Service: **Recycled Water Management**

## **Performance and Resource Overview (Cont'd.)**

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In addition, SBWR plans to add nine miles of recycled water pipeline in 2010-2011 to reach new industrial and irrigation customers. This \$15 million construction program is supported by a \$6.46 million grant from the US Bureau of Reclamation through appropriations from the American Recovery and Reinvestment Act of 2009 (ARRA). The program includes four pipeline extensions in Santa Clara and four in San José, including a retrofit of the main campus of San José State University.

In a related strategy, the City and the Santa Clara Valley Water District recently executed the 40-year Recycled Water Facilities and Programs Integration Agreement to develop the use of recycled water, including joint development of an advanced water treatment facility that will reduce the salinity of recycled water. As approved by the City Council on March 2, 2010, the City expects to contribute up to \$11 million to the construction of the \$50 million facility that will reduce the salinity of recycled water by 30% or more, making the water easier to use for both irrigation and industrial applications. The City-District agreement also includes provisions for sharing operational costs and collaborating on future public education and outreach activities.

The performance measure “millions of gallons per day (mgd) diverted from flow to the bay for beneficial purposes during the dry weather period” is anticipated to fall below the targeted level in 2009-2010. The original target amount of 15 mgd was based on the anticipated addition of several large industrial users of recycled water that are now scheduled to occur in 2010-2011. This lower flow also impacted the targets for “% of wastewater diverted during dry weather period” and “millions of gallons per day delivered annually.” In all cases, significant improvement is expected during 2010-2011. Such improvement is also expected to lead to an increase in revenues and a corresponding reduction in net operating costs, resulting in a lower “cost per million gallons of recycled water delivered.” Revenues are also expected to increase in 2010-2011 due to an increase in the wholesale cost of recycled water for irrigation. This last of three scheduled \$20 per acre-foot (AF) rate increases for irrigation customers will increase the cost to \$415 per AF. In June 2010, SBWR will also seek authorization from the City Council for a \$20 per AF increase in the cost of recycled water for industrial recycled water users. Higher rates and additional demand should add another \$200,000 to \$300,000 per year to SBWR revenues, bringing the program closer to cost-recovery. Finally, in 2009-2010, the City updated its Groundwater Management and Monitoring Plan and formed an ongoing Operations Committee to ensure continued compliance with all Regional Board requirements. This will ensure that the program can achieve 100% compliance with standards (“% of time recycled water quality standards are met or surpassed”). The performance measure for customer satisfaction (“% of recycled water customers rating service as good or excellent”) will be measured during a survey scheduled for 2010-2011 and updated in future reports.

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

**Performance and Resource Overview (Cont'd.)**

<b>Recycled Water Management Performance Summary</b>	<b>2008-2009 Actual</b>	<b>2009-2010 Target</b>	<b>2009-2010 Estimated</b>	<b>2010-2011 Target</b>
 Millions of gallons per day diverted from flow to the Bay for beneficial purposes during the dry weather period*	14.7	15	14.3	16
 Millions of gallons of recycled water delivered annually	3,160	3,450	3,300	3,500
 % of time recycled water quality standards are met or surpassed	100%	100%	99.9%	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	\$1,480	\$1,075	\$1,622	\$1,529
 % of recycled water customers rating service as good or excellent, based on reliability, water quality, and responsiveness	81%**	85%**	NA**	85%**

*Changes to Performance Measures from 2009-2010 Adopted Budget: No*

\* Dry weather period is defined as the lowest three months continuous average 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 2007-2008 Recycled Water Customer Satisfaction Survey in September 2008. The next scheduled survey will cover 2009-2010 and will be reported in fall 2010.

<b>Activity &amp; Workload Highlights</b>	<b>2008-2009 Actual</b>	<b>2009-2010 Forecast</b>	<b>2009-2010 Estimated</b>	<b>2010-2011 Forecast</b>
Total number of South Bay Water Recycling customers	584	630	601	625

*Changes to Activity & Workload Highlights from 2009-2010 Adopted Budget: No*

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

Core Service: Recycled Water Management

## Performance and Resource Overview (Cont'd.)

Manage Recycled Water Resource Summary	2008-2009 Actual 1	2009-2010 Adopted 2	2009-2010 Forecast 3	2010-2011 Proposed 4	% Change (2 to 4)
<b>Core Service Budget *</b>					
Personal Services	\$ 1,851,082	\$ 2,178,721	\$ 2,389,127	\$ 2,335,203	7.2%
Non-Personal/Equipment	1,248,996	2,065,132	1,806,136	1,805,324	(12.6%)
<b>Total</b>	<b>\$ 3,100,078</b>	<b>\$ 4,243,853</b>	<b>\$ 4,195,263</b>	<b>\$ 4,140,527</b>	<b>(2.4%)</b>
<b>Authorized Positions</b>	<b>16.59</b>	<b>17.59</b>	<b>18.03</b>	<b>17.63</b>	<b>0.2%</b>

## Budget Changes By Core Service

Proposed Core Service Changes	Positions	Treatment Plant Appropriations
<b>1. Water Utility Staffing</b>	<b>(0.40)</b>	<b>(53,924)</b>
<p>This proposal would eliminate one vacant Associate Engineer position in the Water Resources Division. This position is one of three Associate Engineer positions in the Water Supply &amp; Engineering Section in this Division. Due to lower water system capital development resulting from the current economic slowdown and reduced growth in the water system service area forecasted for the next few years, the remaining two Associate Engineers, along with two Engineer II positions in the section can absorb the responsibilities of the position with no service level impact. (Ongoing savings: \$136,195)</p>		
<b>Performance Results:</b>		
<b>Cost, Quality</b> This action reduces budgeted costs with no anticipated impact to current service levels.		
<b>2. Vehicle Maintenance Staffing and Contractual Services</b>		<b>(812)</b>
<p>This proposal generates city-wide vehicle maintenance and operations cost savings by reducing personnel and contractual services. In terms of the Environmental Services Department's, San José/Santa Clara Treatment Plant Operating Fund, the annual savings expected is \$34,188 in the Wastewater Management Core Service, and \$812 in the Recycled Water Management Core Service.</p>		
<b>Performance Results:</b>		
<b>Quality, Customer Satisfaction</b> This proposal would reduce the percentage of vehicles that are available for use by departments when needed. Customer satisfaction with the timeliness of work order completion may also decrease.		
<b>2009-2010 Proposed Core Service Changes Total</b>	<b>(0.40)</b>	<b>(54,736)</b>

# San Jose/Santa Clara Water Pollution Control Plant

*Environmental Services Department*

**Core Service: Natural and Energy Resources Protection**

## **Core Service Purpose**

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**P**romote enhanced air quality, environmentally responsible land use, and conservation of water and energy resources.

**Key Operational Services:**

- Protect and Monitor Groundwater Quality**
- NPDES Permits Development**
- Habitat Protection**
- Water Conservation**

## **Performance and Resource Overview**

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**T**his core service focuses on the City's efforts to conserve and protect the quality of air, land, water, energy, and other natural resources. The Environmental Services Department coordinates and collaborates with other departments to implement key initiatives through program and policy development, outreach and education, legislative advocacy, and by identifying and securing supporting grants. The work of this core service is guided by the City's Green Vision. In conjunction with the City's ten Green Vision goals, the City of San José has committed to additional environmental initiatives, including the Urban Environmental Accords, the Bay Area Climate Change Compact, the U.S. Mayors' Climate Protection Agreement, the Greenhouse Gas Emissions Reduction Plan, and statewide legislation such as the Global Warming Solutions Act of 2006 (AB32). Through these initiatives, directly supported by the Natural and Energy Resources Protection Core Service, the City demonstrates national leadership in environmental sustainability, growth of the green economy, and an improved quality of life for its residents. This core service was previously titled "Protect Natural and Energy Resources."






**Water Conservation** - The City is in its second year of implementing the citywide Water Conservation Plan. This plan includes the continuance of a cost-sharing agreement with the Santa Clara Valley Water District for indoor water conservation programs such as incentives for water-efficient toilets and clothes washers. The cost-sharing agreement also funds water conservation technologies, and water use surveys for residents and businesses. The City is maintaining its contribution to these cost-shared programs over the next year. In 2008-2009, water conservation efforts achieved approximately 303,000 gallons per day of water savings, or 151% of the water conservation goal, in the Plant service area. The City is expected to achieve 75% of this goal for 2009-2010 because there was a delay in negotiating and signing the agreement, shortening the span of time when funding was available for water conservation programs. In 2008-2009, the City adopted an updated water waste ordinance to prevent and reduce practices that waste water. Upcoming efforts include an update of graywater reuse, rainwater/stormwater capture, or indoor water efficiency standards.

# San Jose/Santa Clara Water Pollution Control Plant

Environmental Services Department

Core Service: Natural and Energy Resources Protection

## Performance and Resource Overview (Cont'd.)

Natural and Energy Resources Protection Performance Summary	2008-2009 Actual	2009-2010 Target	2009-2010 Estimated	2010-2011 Target
 (Energy) % change in energy usage in all City Accounts from 2007 baseline	NEW	NEW	NEW	-10.0%
 (Energy) % of energy used at the Water Pollution Control Plant that is renewable	NEW	NEW	NEW	60%
 (Water) % of annual goal for gallons of water conserved tributary area-wide	151%	100%	75%	100%
 (Water) Net cost per gallon per day of water conserved through City programs	\$1.39	\$1.79	\$1.58	\$1.66
 (Water) % of residents demonstrating water conservation knowledge	56%*	62%	N/A*	68%

*Changes to Performance Measures from 2009-2010 Adopted Budget: Yes<sup>1</sup>*

\* Data for this measure is from the 2008 Water Focus Survey, which was conducted in summer 2008. The next scheduled survey is scheduled for summer 2010 with results available by January 2011.

<sup>1</sup> Changes to Performance Measures from 2009-2010 Adopted Budget:

⊖ “% of energy conserved in City facilities” was revised to “% change in energy usage in all City accounts from 2007 baseline” to better measure appropriate progress towards Green Vision Goal #2 and to include energy usage from all City accounts and to establish a baseline year for comparison.

+ “% of energy used at the Water Pollution Control Plant that is renewable” was added to demonstrate how much of the Plant’s energy usage, which accounts for more than 50% of all City facilities, comes from renewable resources.

✗ “% of Notice of Violations (NOVs) resolved to the satisfaction of the regional body” was deleted because performance progress could not be demonstrated. If any NOVs are issued, it is mandated that violations are resolved, so the percentage reported will always be 100%.

Activity & Workload Highlights	2008-2009 Actual	2009-2010 Forecast	2009-2010 Estimated	2010-2011 Forecast
Millions of gallons per day conserved (tributary area-wide)	0.303	0.200	0.15	0.28
Cumulative millions of gallons per day conserved since July 1992 (tributary area-wide)	8.57	8.50	8.72	9.00
Number of UN Accords Implemented (of 21 total Actions)	12	16	13	13

*Changes to Activity & Workload Highlights from 2009-2010 Adopted Budget: No*



**San Jose/Santa Clara Water Pollution Control Plant**  
*Environmental Services Department*  
**Core Service: Natural and Energy Resources Protection**

**Performance and Resource Overview (Cont'd.)**

Protect Natural and Energy Resources Resource Summary	2008-2009 Actual 1	2009-2010 Adopted 2	2010-2011 Forecast 3	2010-2011 Proposed 4	% Change (2 to 4)
<b>Core Service Budget *</b>					
Personal Services	\$ 179,393	\$ 196,844	\$ 241,405	\$ 241,405	22.6%
Non-Personal/Equipment	458,260	1,542,817	942,817	942,817	(38.9%)
<b>Total</b>	<b>\$ 637,653</b>	<b>\$ 1,739,661</b>	<b>\$ 1,184,222</b>	<b>\$ 1,184,222</b>	<b>(31.9%)</b>
 <b>Authorized Positions</b>	 <b>1.22</b>	 <b>1.22</b>	 <b>1.58</b>	 <b>1.58</b>	 <b>29.5%</b>

\* The Resource Summary includes all operating allocations within the Department that contribute to the performance of this Core Service. Note that additional resources from City-Wide, Special Funds and/or Capital Funds may also contribute to Core Service performance, yet are displayed elsewhere in a separate City budget.

**Budget Changes By Core Service**

Proposed Core Service Changes	Positions	Treatment Plant Appropriations
<b>None</b>		
<b>2010-2011 Proposed Core Service Changes Total</b>	<b>0</b>	<b>0</b>

# San Jose/Santa Clara Water Pollution Control Plant

## Environmental Services Department

### Strategic Support

**S**trategic Support represents services provided within departments that support and guide the provision of the core services. Strategic Support within the Environmental Services Department includes:

#### Key Operational Services:

- Public Education
- Long Range Planning
- Financial Management
- Information Technology Services
- Employee Services
- Facility Management
- Clerical Support
- Materials Management

### Performance and Resource Overview

**K**ey initiatives in this area include annual reporting on the Environmental Services Department's special funds and rates, legislative research and advocacy.

Costs for these programs are allocated to the Treatment Plant Operating Fund based on a measure of the units of service provided. The following table shows the percentage of support program resources allocated to the Treatment Plant Operating Fund for FY 2009-2010 and FY 2010-2011.

#### Allocated Support from the Treatment Plant Operating Fund

Program	FY 2009-10	FY 2010-2011
Communications	45%	49%
Environmental Compliance	43%	43%
Safety	54%	55%
Environmental Mgmt Systems	79%	72%
Office of Sustainability	46%	46%
Management & Support Services	71%	67%
ESD-Management Information Systems	65%	65%
Warehouse <sup>1</sup>		82%

### Strategic Support

<sup>1</sup> Previously part of Support Services

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

**Performance and Resource Overview (Cont'd.)**

Strategic Support Resource Summary	2008-2009 Actual 1	2009-2010 Adopted 2	2010-2011 Forecast 3	2010-2011 Proposed 4	% Change (2 to 4)
<b>Core Service Budget *</b>					
Personal Services	\$ 3,799,519	\$ 3,595,923	\$ 4,325,376	\$ 4,166,365	15.9%
Non-Personal/Equipment	329,680	333,993	341,775	241,775	(27.6%)
<b>Total</b>	<b>\$ 4,129,199</b>	<b>\$ 3,929,916</b>	<b>\$ 4,667,151</b>	<b>\$ 4,408,140</b>	<b>12.2%</b>
<b>Authorized Positions</b>	<b>30.48</b>	<b>30.93</b>	<b>35.85</b>	<b>35.18</b>	<b>13.7%</b>

**Strategic Support Budget Changes**

Proposed Changes	Positions	Treatment Plant Appropriations
<b>1. Administrative Staffing</b>	<b>(0.67)</b>	<b>(46,899)</b>
<p>This proposal would delete a vacant Office Specialist II position in the Environmental Services Department's Administrative Division. This position, which had provided general administrative support to the department, has been vacant since May 2009. The four remaining administrative positions in this work group have absorbed the workload, and the deletion is expected to have no impact on operations. (Ongoing savings: \$48,000)</p>		
<b>Performance Results:</b>		
No changes to current service levels are anticipated as a result of this action.		
<b>2. Management Compensation Reduction</b>		<b>(112,112)</b>
<p>This action is a reduction in personnel costs equivalent to 5% of total compensation for Executive Management and Professional Employees (Unit 99). The savings generated from these actions helps address the General Fund shortfall, thereby retaining City services which may otherwise have been eliminated. In the Environmental Services Department, Treatment Plant Operating Fund, savings total \$112,112. (Ongoing savings: \$112,112)</p>		
<b>Performance Results:</b>		
No changes to current service levels are anticipated as a result of this action.		
<b>2010-2011 Proposed Strategic Support Changes Total</b>		<b>(0.67) (159,011)</b>



# Memorandum

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** John Stufflebean

**SUBJECT:** SEE BELOW

**DATE:** 04-26-10

Approved

Date

4/27/10

**COUNCIL DISTRICT:** 3

**SUBJECT: APPROVAL OF ACTIONS RELATED TO THE SJ-19 RECYCLED WATER AIRPORT MAIN EXTENSION PROJECT**

## RECOMMENDATION

- (a) Reject all bids for the SJ-19 Recycled Water Airport Main Extension project.
- (b) Accept the report on re-bid of the project and award of contract for SJ-19 Recycled Water Airport Main Extension project to the low bidder, Bay Pacific Pipelines, Inc., for the term of May 2010 to August 2010, in an amount not to exceed \$473,000, and approve a project contingency in the amount of \$75,000.

## OUTCOME

Rejecting all bids will enable staff to award the SJ-19 Recycled Water Airport Main Extension project following the revision of the Project Specifications to clarify experience requirements for the project which will ensure that the successful bidder following the re-bid of the project has the technical experience necessary to successfully complete the project. Awarding the project to the lowest responsive and responsible bidder Bay Pacific Pipelines, Inc., following the re-bid of the project will enable staff to timely construct a recycled water main to the Norman Y. Mineta San José International Airport (Airport) in a favorable bidding climate.

## BACKGROUND

On June 17, 2008, the San José City Council adopted a resolution to proceed with the design and installation of recycled water infrastructure at the Airport. Approval of the staff recommendation included direction to utilize \$2 million from the Airport's Terminal Area Improvement Program (TAIP) budget and \$2.1 million from the Revised South Bay Action Plan budget to design and construct the infrastructure needed to bring recycled water to the Airport. Since that time, the Airport has designed and is in the process of constructing recycled water distribution infrastructure within the terminal area roadways currently being improved by the TAIP.

The scope of this project includes an extension of a 12-inch recycled water pipeline from Hedding Street to the Airport, at a total length of approximately 4,850 feet. The pipeline will extend along the west side of the Guadalupe River Park, then east at Highway 880 to the river bicycle path, then north to 1300 feet south of Skyport Drive. The end point of the recycled water pipeline constructed under this project will be connected to the end point of the recycled water pipeline constructed by the Airport. The recycled water will be used in carwash facilities, cooling towers, restrooms, and for landscape irrigation. This extension will further the expansion of recycled water into areas slated for redevelopment consistent with the North San José Area Development Policy.

This project qualifies for funding reimbursement for a portion (43%) of the work pursuant to the federal American Recovery and Reinvestment Act of 2009 (ARRA).

### ANALYSIS

Bids were received by the City on the project bid date of March 11, 2010, with the following results:

<u>Contractor</u>	<u>City</u>	<u>Bid Amount</u>	<u>Variance</u>	
			<u>Over/(Under)</u>	<u>Amount Percent</u>
<b>Engineer's Estimate</b>		<b>\$1,203,420</b>		
Shaw Pipeline	San Francisco, CA	\$925,200	(\$278,220)	(23%)
Preston Pipelines	Milpitas, CA	\$844,538	(\$358,882)	(30%)
K.J. Woods Construction	San Francisco, CA	\$844,000	(\$359,420)	(30%)
Pacific Underground Construction	San José, CA	\$817,975	(\$385,445)	(32%)
Fermin Sierra Construction	Union City, CA	\$777,700	(\$425,720)	(35%)
Lewis & Tibbitts, Inc.	San José, CA	\$725,365	(\$478,055)	(40%)
Sanco Pipelines, Inc.	Campbell, CA	\$642,059	(\$561,361)	(47%)
Platinum Pipeline, Inc.	Dublin, CA	\$626,300	(\$577,120)	(48%)
J&M, Inc.	Livermore, CA	\$568,065	(\$635,355)	(53%)
Granite Construction Company	Watsonville, CA	\$530,530	(\$672,890)	(56%)
California Trenchless, Inc.	Hayward, CA	\$504,650	(\$698,770)	(58%)

The Project Specifications for the project requires that bidders shall submit with their proposal a list of at least three projects and/or entities for whom the bidder has performed "similar" work and completed similar contracts. The project scope involves the installation of pressurized water main. Staff reviewed the low bid and found that the bidder submitted information on non-pressurized sewer and storm drain installations to demonstrate that they met the requisite experience. Staff reviewed the remaining bids and found that the bidders submitted different information to demonstrate that they met the requisite experience. Because of inconsistencies in the bids, staff was concerned that the specification regarding the bidders' experience was not clear enough and determined that the experience requirement needed to be clarified in order to: (1) ensure that the bidders understand what is being requested of them; and (2) ensure that the

City obtains bids from qualified contractors who have previously performed pressurized water mains with ductile iron pipe. As a result, staff is recommending that all bids be rejected so that revisions could be made to the Project Specifications that will illicit the bidders' experience with water main installation projects.

Pursuant to the federal American Recovery and Reinvestment Act of 2009 (ARRA), funding for this project is required to be 90% expended by September 2010. In addition, completion is required by August 2010 to provide an alternative water supply for the new Airport facilities. To expedite the process and ensure that a contractor has been retained and is ready to proceed with the work, staff re-bid the project while concurrently preparing the recommendation to reject all bids for the City Council's consideration.

Re-bids were received by the City on the project bid date of April 6, 2010, with the following results:

<u>Contractor</u>	<u>City</u>	<u>Bid Amount</u>	<u>Variance</u>	
			<u>Over/(Under)</u> <u>Amount</u>	<u>Percent</u>
<b>Engineer's Estimate</b>		<b>\$1,203,420</b>		
Preston Pipelines	Milpitas, CA	\$844,538	(\$382,402)	(32%)
Lewis & Tibbitts, Inc.	San José, CA	\$725,365	(\$478,055)	(40%)
Granite Construction Company	Watsonville, CA	\$530,530	(\$567,970)	(47%)
J&M, Inc.	Livermore, CA	\$568,065	(\$668,192)	(56%)
Platinum Pipeline, Inc.	Dublin, CA	\$626,300	(\$687,239)	(57%)
Pacific Underground Construction	San José, CA	\$817,975	(\$688,485)	(57%)
California Trenchless, Inc.	Hayward, CA	\$504,650	(\$701,770)	(58%)
Bay Pacific Pipelines, Inc.	Novato, CA	\$473,000	(\$730,420)	(61%)

The re-bid documents submitted by the low bidder, Bay Pacific Pipelines, Inc., were evaluated and found to be in order. The low bid is 61% below the engineer's estimate. The project was advertised during a period of decreased construction activity resulting in higher number of bidders and increased competition for available work. Staff has concluded that the low bid is reasonable and acceptable. Accordingly, staff recommends awarding the contract to Bay Pacific Pipelines, Inc. based on the low bid submitted by this contractor. A contingency in the amount of \$75,000 is requested for any unforeseen conditions that may arise during construction.

### **EVALUATION AND FOLLOW-UP**

The project is currently within budget and on schedule with a projected completion date of August 2010. No additional follow up actions with the Council are expected at this time.

## POLICY ALTERNATIVES

**Alternative #1:** Award to apparent lowest bidder of the original bid, California Trenchless, Inc., based on the as-bid project specifications and bidding instructions.

**Pros:** Awarding the contract will eliminate the potential for delay of contract implementation.

**Cons:** Awarding the contract with ambiguities in the Project Specifications could result in a protest and delay the award of the contract.

**Reason for not recommending:** Clarifying the Project Specifications and re-bidding the contract will ensure a fair bidding process for all interested contractors.

**Alternative #2:** Award to second lowest bidder of the original bid, Granite Construction, Inc., based on the as-bid project specifications and bidding instructions.

**Pros:** Awarding the contract will eliminate the potential for delay of contract implementation.

**Cons:** Awarding the contract with ambiguities in the Project Specifications could result in a protest and delay the award of the contract.

**Reason for not recommending:** Clarifying the Project Specifications and re-bidding the contract will ensure a fair bidding process for all interested contractors.

## 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 does not meet any of the above criteria. To solicit contractors, this project was advertised in the *San José Post Record*, as well as on the Public Works Bid Hotline. This memorandum is posted on the City's website for the May 18, 2010 City Council agenda.

## COORDINATION

This project has been coordinated with Risk Management, Equality Assurance, the City Attorney's Office, and the City Manager's Budget Office and is scheduled to be heard at the May 13, 2010 Treatment Plant Advisory Committee (TPAC) meeting.

## COST SUMMARY/IMPLICATIONS

1. AMOUNT OF RECOMMENDATION:

**\$473,000**

2. COST OF PROJECT:

Construction	\$ 473,000
Project Delivery	\$ 100,000
Contingency	\$ 75,000
<b>Total Project Costs</b>	<b>\$ 648,000</b>

3. SOURCE OF FUNDING: 512 – San Jose/Santa Clara Treatment Plant Capital Fund

4. FISCAL IMPACT: There are no cost implications to the General Fund as a result of this action. This recommendation meets the general principles of the 2009-2010 Mayor’s March Budget Message of providing essential public services while valuing financial sustainability and cost recovery.

**BUDGET REFERENCE**

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

Fund #	Appn. #	Appn. Name	RC #	Total Appn.	Estimated Amt. For Contract	2009-2010 Adopted Capital Budget (Page)	Last Budget Action (Date, Ord. No.)
<b>Total Project Costs</b>				<b>\$648,000</b>	<b>\$473,000</b>		
<b>Current Funding Available</b>							
512	6589	Revised SBAP-SBWR Extension	153485	\$17,642,000	\$270,000	V-138	11/17/09, Ord. #28669
512	TBD	Recovery Act – South Bay Water Recycling Phase IC*		\$6,310,000	\$203,000	NA	TBD
<b>Total Current Funding Available</b>				<b>\$17,642,000</b>	<b>\$473,000</b>		

\* This appropriation would be established with Council adoption of the recommendation in the **COOPERATIVE FUNDING AGREEMENT WITH THE US BUREAU OF RECLAMATION FOR DESIGN AND CONSTRUCTION OF SOUTH BAY WATER RECYLING– PHASE 1C IMPROVEMENTS** memorandum, scheduled for Council hearing on April 20 ,2010.



HONORABLE MAYOR AND CITY COUNCIL

04-26-10

**Subject: Award of Contract for SJ-19 Recycled Water Airport Main Extension**

Page 6

**CEQA**

Exempt, File PP10-20.

/s/

JOHN STUFFLEBEAN

Director, Environmental Services

For questions please contact Mansour Nasser, Deputy Director, at (408) 277-3671.



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** John Stufflebean

**SUBJECT:** SEE BELOW

**DATE:** 04-26-10

Approved

Date

4/27/10

**COUNCIL DISTRICT:** City-Wide

**SUBJECT: ADOPTION OF A RESOLUTION AUTHORIZING THE CITY MANAGER TO NEGOTIATE FIRST AMENDMENTS TO THE MASTER AGREEMENTS WITH CAROLLO ENGINEERS, CH2M HILL, AND BLACK & VEATCH FOR ENGINEERING SERVICES FOR SAN JOSÉ WATER POLLUTION CONTROL PLANT CAPITAL IMPROVEMENT PROGRAM**

## RECOMMENDATION

Adopt a resolution authorizing the City Manager to negotiate and execute first amendments to the master agreements with:

- (a) Carollo Engineers for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent;
- (b) CH2M Hill for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by five percent; and
- (c) Black & Veatch for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant increasing the maximum compensation by \$3,000,000, for a total agreement amount not to exceed \$4,000,000 and decreasing the hourly rates by four percent.

**OUTCOME**

Approval of this recommendation will provide the City with the ability to continue to obtain engineering services from Carollo Engineers, CH2M Hill, and Black & Veatch for various capital improvement projects at the San José/Santa Clara Water Pollution Control Plant (Plant) on an as-needed basis.

**BACKGROUND**

On March 25, 2008, following the competitive selection procedure outlined in the Qualification Based Consultant Selection policy, Council approved five master agreements with Black & Veatch, Brown and Caldwell, Carollo Engineers, CH2M Hill, and AECOM USA (successor through merger to Metcalf & Eddy) for engineering services for various capital improvement projects at the Plant. The not-to-exceed payable amount for each master agreement is as follows:

<u>Firm</u>	<u>Not to Exceed Amount</u>
1. Black & Veatch	\$1 million
2. Brown and Caldwell	\$5 million
3. Carollo Engineers	\$1 million
4. CH2M Hill	\$1 million
5. AECOM USA	\$1 million

All five consultant agreements were approved for terms continuing through June 30, 2013.

When Council originally approved the master agreements, staff had informed Council that in addition to the total \$9 million in the original agreements (sum of not-to-exceed amount listed in the table above), an additional \$9 million is anticipated to be added to the agreements, during the term of the agreements. This amount is consistent with recent assessments by Staff, on additional consultant services required over the next three years to meet the needs of the Plant.

**ANALYSIS**

**The Need for Additional Services**

Under these master agreements, the consultants perform services authorized by service (task) orders that detail the specific scope of work, schedule and compensation for individual projects or tasks. To date, City has authorized a total of \$3,234,356 for eighteen service orders associated with the five master agreements, as follows:

<u>Firm</u>	<u>Value of Service Orders Issued</u>
1. Black & Veatch	\$607,286
2. Brown and Caldwell	\$619,260
3. Carollo Engineers	\$999,700

4. CH2M Hill	\$765,666
5. AECOM USA	\$242,444

These service orders include assistance with performing condition assessments, environmental impact assessments, pre-design studies, detailed design, and providing engineering support during construction of capital improvement projects. The value of service orders issued under the Carollo, CH2M Hill, and Black & Veatch master agreements are close to the maximum payable amount allowed under the respective master agreements.

Since the approval of the original agreements, the value of construction projects scheduled in the Capital Program at the Plant has grown from \$184.9 million over the 2008-2012, to \$247.4 million for the 2010-2014 five-year period. Over the next three years starting in 2010-2011, about \$108.7 million worth of capital improvement projects has been identified and approved as part of the 2010-2014 CIP. This does not include the Electrical Reliability Improvements projects, for which the City has other specialized consultants to provide engineering support. The five-year CIP includes rehabilitation and replacement type projects to address the Plant's aging infrastructure as well as projects to improve energy efficiency, reliability, and operational flexibility. Some of these projects include digester rehabilitation, clarifier rehabilitation, chemical feed station addition, fine bubble membrane diffuser conversion and advanced automation and control. Consultant services required for development, design, and construction of these projects are estimated to be about \$9 million over the next 3 years.

#### **City Staff Workload and In-sourcing**

Due to the complexity and magnitude of work at the Plant, multi-engineering disciplines are needed to successfully implement Plant projects. Staff intends to utilize consultant expertise to support the more complex CIP projects at the Plant for which such expertise currently does not exist within City staff. Hiring and training for this expertise does not provide for a sustainable workload due to the intermittent nature of this need and the varied disciplines needed. Therefore, ESD and PW staff will continue to perform in-house design of recurring types of projects such as handrail replacement, pipeline rehabilitation and replacement, pumps and valves replacement. Staff will also continue to perform program management and construction management work. In addition, Staff will be spending more efforts towards pilot testing for the purpose of evaluating technology alternatives and provide specific design criteria input to ensure successful and optimized technology implementation.

The availability of multiple consultant master agreements has allowed the Plant greater flexibility to augment staff resources and better control of project delivery schedules. It has also proved effective in maximizing responsiveness and flexibility in meeting the Plant's variable needs. Staff is able to issue a service order to the firm most able to complement staff expertise in a specific technical discipline, ensuring the most cost-effective and efficient use of staff and consultant resources. Compared to the last 10 years of capital program implementation, the use of multiple consultant master agreements has allowed for a 50% reduction in project implementation timeline, due to the availability of multiple master agreements and in turn increased staff productivity with the delivery of the capital program at the Plant.

### **Why these Three Firms?**

Over the past two years, staff has worked successfully with these three firms on a number of CIP projects that are worth about \$34 million.

Black & Veatch performed pre-design studies, detailed design, and provided engineering support during construction of the Nitrification Gate and Channel Aeration Improvement project.

CH2M Hill is currently completing the pre-design study of the Secondary Air Plenum Filtration project, a project under the Plant Infrastructure Improvements category. CH2M Hill continues to assist the City with environmental engineering assessments on several South Bay Water Recycling projects funded by the American Recovery and Reinvestment Act (ARRA).

Carollo Engineers is providing engineering support for the soon to be completed Alternative Disinfection project. Carollo is also assisting staff with design of the Headworks Enhancement project.

Due to the satisfactory services provided and the respective expertise of these three firms as it relates to the adopted 2010-2014 Capital Improvement Program (CIP), staff anticipates engaging these consultants in additional work for the duration of the agreements. Since there is balance remaining in the Brown and Caldwell and AECOM master agreements, staff will maintain these two master agreements as-is.

### **Ensuring Quality and Value**

Under these master agreements, the consultants perform services authorized by service orders. Funds are encumbered when service orders are issued. To ensure that the scope of work under each service order is adequate and comprehensive, assigned resources are appropriate, and costs are reasonable, each scope of work will be reviewed by staff in the various sections of ESD and PW as follows:

- Pre-design Studies – Operations and Maintenance sections (ESD), Process Engineering (ESD) and Laboratory (ESD) staff
- Condition Assessment – Operations and Maintenance sections, Process Engineering, Mechanical Engineering (ESD), CIP Engineering (ESD/PW) and Structural Engineering (PW)
- Detail Design – Operations and Maintenance sections, Process Engineering, Mechanical Engineering, CIP Engineering, Structural Engineering, Process Control (ESD) and Electrical Engineering (CIP)
- Construction Management Support – CIP Engineering

In addition, each service order is reviewed by ESD Fiscal section to ensure that sufficient budget is available in the appropriation. Each service order is also reviewed by the City Attorney's Office to ensure that the service order meets the terms and conditions of the master agreement and that the scope of work is clearly defined.

The current agreements allow for an annual adjustment to the hourly rates of up to 4.5 percent. Since the agreements were approved in 2008, Black and Veatch's hourly rates have not increased and Carollo Engineers and CH2M Hill's hourly rates have increased one percent. To further control and reduce expenditures in light of current economic uncertainty, Carollo Engineers, CH2M Hill, and Black & Veatch have agreed to assist the City through reduction in their hourly rates. Under these amendments, Carollo Engineers and CH2M Hill's hourly rates will be reduced by 5 percent and Black and Veatch's hourly rates will be reduced by 4 percent, until December 31, 2010. After December 31, 2010, the consultants' hourly rates will be eligible for increases of up to 4.5 percent, at the discretion of the City.

### **Conclusion**

Based on the above analysis, staff believes that the recommended approval to increase the amount payable for the Carollo, CH2M Hill, and Black & Veatch master agreements by \$3 million each provides the most efficient and effective tools for the City to deliver the significant CIP at the Plant. This will allow Staff to continue to obtain engineering services from these three firms, for various capital improvements project, on an as-needed basis.

### **EVALUATION AND FOLLOW-UP**

Approval of this recommendation will provide staff with the ability to continue to engage the services of CH2M Hill, Carollo Engineers, and Black & Veatch on an as-needed basis, thereby enabling a more cost-effective and timely delivery of projects. No additional follow up actions with the Council is expected at this time.

### **POLICY ALTERNATIVES**

**Alternative # 1:** Deny approval of the amendments for the CH2M Hill, Carollo Engineers, and Black & Veatch master agreements and utilize either City staff or other consultant master agreements to perform the required tasks.

**Pros:** Some of the work would be done by City staff.

**Cons:** City staff does not possess the appropriate technical capability across the broad range of required expertise to perform the work. Reduced availability of consultant resources and expertise to perform tasks.

**Reasons for not recommending:** The City would need to hire staff to cover diverse areas of professional expertise. Because the demand for services varies, the workload generated is projected to be intermittent and would not be sustainable throughout the year. Project schedules subject to consultant availability. Additionally, having multiple firms available enables staff to issue a service orders to the firm most able to complement staff expertise in a specific technical discipline, thus ensuring the most cost-effective and efficient use of staff and consultant resources.

**Alternative # 2:** Deny approval of the amendments for the CH2M Hill, Carollo Engineers, and Black & Veatch and direct staff to conduct another solicitation process to seek consultants services

**Pros:** Provides opportunity for more firms to compete and possibly provide better hourly rates

**Cons:** Staff time to develop the Request for Proposal and complete the selection process; possible selection of consultants not qualified or unable to deliver the complex projects at the Plant

**Reasons for not recommending:** Proceeding with an alternate source of consultants agreements may not result in any cost savings as professional services agreements are selected based on qualifications. The risk negotiating cheaper rates with an alternate consultants firm with lesser qualifications could result in compromised designs and failed projects

### **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 meets Criterion 1 and will be posted on the City's website for the May 18, 2010 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 13, 2010 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: \$12,000,000

2. COST AGREEMENT WITH EACH CONSULTANT:

Carollo Engineers	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000
CH2M Hill	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000
Black & Veatch	
Agreement	\$ 1,000,000
First Amendment	\$ 3,000,000
<b>TOTAL AGREEMENT AMOUNT</b>	<b>\$ 12,000,000</b>

3. SOURCE OF FUNDING: 512 – San José/Santa Clara Treatment Plant Capital Fund\*.

4. FISCAL IMPACT: No additional funding is necessary to approve these master agreements. Funds have already or will be appropriated as needed for the various capital projects through the Plant Capital Improvement Program.

\* Funding for these Master Agreements will come from the San José/Santa Clara Treatment Plant Capital Fund. In 2009-2010, appropriations for construction projects in this fund, not including the Electrical Reliability Improvements Project, total \$41.2 million. Costs for these contracts to be incurred in future fiscal years are subject to Council approval of the funding.

**CEQA**

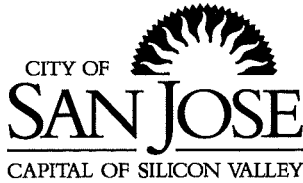
Not a project.

/s/

JOHN STUFFLEBEAN  
Director, Environmental Services

For questions please call Bhavani Yerrapotu, Division Manager Technical Support Services, Environmental Services Dept., at (408) 945-5321.





# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** John Stufflebean

**SUBJECT:** SEE BELOW

**DATE:** 04-26-10

Approved

Date

4/27/10

**COUNCIL DISTRICT:** City-Wide

**SUBJECT: APPLICATIONS FOR STATE GRANTS: PRE-DEVELOPMENT  
PLANNING FOR BIOMETHANE FUEL PRODUCTION, AND  
ALTERNATIVE FUEL VEHICLE MANUFACTURING FACILITIES**

## RECOMMENDATION

Adopt a resolution authorizing the City Manager to submit two grant proposals to the California Energy Commission, Alternative and Renewable Fuel and Vehicle Technology Program, for up to \$1,000,000 each to conduct pre-development planning for:

1. A biomethane transportation fuel production facility on Water Pollution Control Plant lands, subject to the concurrence of the Treatment Plant Advisory Committee; and
2. An alternative fuel vehicle manufacturing facility in San José.

## OUTCOME

Approval of this recommendation will authorize the City Manager to submit two grant applications by the May 20, 2010 deadline to the California Energy Commission (CEC). The first application, subject to the concurrence of the Treatment Plant Advisory Committee, will request funding to support pre-development activities for the development of a biomethane transportation fuel production facility and fueling infrastructure on land controlled by the San José/Santa Clara Water Pollution Control Plant (Plant). The second application will request funding to support pre-development activities for the development of an alternative fuel vehicle manufacturing facility in San José. These facilities would help the City meet its Green Vision goals for reducing waste, generating renewable energy, converting fleet to use alternative fuels, and creating local green jobs.

## **BACKGROUND**

The CEC announced these grant opportunities on April 8, 2010, as part of the Alternative and Renewable Fuel and Vehicle Technology Program which provides grant funding to projects that develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the State's climate change goals. These grant solicitations are intended to encourage the development of a new industry in California to produce renewable transportation fuels, reduce petroleum fuel demand, promote California-based manufacturing and assembly plants that produce alternative fuel vehicles and components, stimulate economic development, and reduce environmental impacts associated with the State's major waste sources.

Successful proposals would provide the City with financial assistance to perform pre-development planning activities for a biomethane transportation fuel production facility on Water Pollution Control Plant lands and an alternative fuel vehicle manufacturing facility in San José. Pre-development analysis could include a wide array of activities such as market analyses, feasibility studies, facility design and engineering, pilot programs, and performance testing, which can make the City more competitive in future grant cycles.

Projects eligible for pre-development funding include design, construction, and operation of bio-methane production facilities; projects that develop infrastructure to store, distribute and dispense renewable transportation fuels; and manufacturing and assembly plants that produce alternative fuel vehicles and components. The grant requires match funding of 50% of total project costs, which can be in-kind services and assets. The application deadline is May 20, 2010, awards announced July 6, 2010, and funding is scheduled for approval in fall of 2010.

## **ANALYSIS**

The goals of the CEC Alternative and Renewable Fuel and Vehicle Technology Program align with the City's Green Vision goals of creating a green economy in San José through industries that reduce waste, generate renewable energy, utilize fleets that run on alternative fuels, and create local green jobs. San Jose's Green Vision and other policy initiatives position the City very well to win funding and the pre-development activities funded by these solicitations can make San José even more competitive for future grant cycles.

### **Biomethane Fuel Production Facility**

Development of waste-to-energy technology infrastructure at the Plant was included in the Council-approved 2010 Green Vision Work Plan and identified as a priority project in the City Manager's Office American Recovery and Reinvestment Act informational memorandum to Council dated December 4, 2008. A waste-to-energy facility at the Plant also is consistent with the land use alternatives currently being developed as part of the Plant Master Plan. Analysis and planning needed to meet these goals is already underway and includes digester upgrades, a grease receiving station, optimization of the aeration process to reduce energy usage, advanced automation of the treatment processes, and installation of fuel cells. Completed projects and ongoing analysis would qualify as matching contributions from the City in this grant process.

Currently, large scale facilities that use digestion for food, yard trimmings, and fats, oils, and grease, to create biomethane are primarily located in Europe and Asia due to higher population densities and disposal costs in those areas. However, extensive research by Los Angeles City and County, San Francisco, Alameda County and other California local government agencies indicates that these facilities may now be technically and economic feasible in California.

As a result, providers of waste-to-energy infrastructure are looking for showcase sites in North America. Since the release of the City's Renewable Energy Request for Information (RFI) in 2007, technology providers have continuously approached the City with energy infrastructure proposals. To assess new opportunities, the City released an updated RFI in January 2010 to gauge the level of private sector interest and obtain information from firms interested in participating in development of a biomethane transportation fuel production facility and fueling infrastructure on Water Pollution Control Plant lands. The City received 18 responses that included valuable information the City can use to target ongoing analysis and planning in alignment with private sector opportunities.

A biomethane plant located at the Plant could create methane gas from regional waste feedstocks such as food and yard waste and could provide the following benefits to the City and Plant Tributary Agencies:

- Divert hard-to-recycle waste from landfills and reduce waste footprint
- Generate renewable energy for plant operations
- Provide compressed natural gas vehicle fuel for City and Contractor vehicles
- Generate revenue from land lease
- Leverage private sector and government resources for facility development
- Leverage synergies with plant operations including use of recycled water and provision of methane for energy, as well as enhanced use of plant infrastructure
- Drive leadership as a center for technology innovation

#### **Alternative Fuel Vehicle Manufacturing Facility**

Pre-development planning for an alternative fuel vehicle manufacturing facility can help emerging Clean Tech companies start and grow in San José. The Electronic Transportation Development Center (ETDC) at the Environmental Innovation Center will provide a facility where regional companies can work together to design, test, and commercialize prototypes of advanced clean and renewable energy transportation technologies for green fleet commercial vehicles of all types. The ETDC will provide lab and prototype manufacturing space for a series of clean transportation demonstration vehicles. Pre-development planning for the alternative fuel vehicle manufacturing facility meets the purpose and intent of this grant funding opportunity provided by the CEC.

#### **EVALUATION AND FOLLOW-UP**

This memorandum is scheduled to be considered by the Treatment Plant Advisory Committee (TPAC) on May 13, 2010. If the City is selected for a grant award, staff will bring forward a recommendation for grant acceptance to Council and TPAC for consideration.

### **PUBLIC OUTREACH/INTEREST**

This project does not meet any of the below Criteria, but this memorandum will be posted on the City's website for the May 18, 2010 Council agenda. This item is scheduled to be heard at the May 13, 2010, TPAC meeting.

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

### **COORDINATION**

This memorandum was coordinated with the City Manager's Budget Office, the Office of Economic Development, the City Attorney, and is scheduled to be heard at the May 13, 2010 TPAC meeting.

### **COST IMPLICATIONS**

The grants require match funding of 50% of total project costs, which can be in-kind services and assets. The value of currently budgeted technical consultant services, City staff time, and existing City capital assets, such as land and buildings, would be eligible for the matching fund requirement for each grant.

### **CEQA**

Not a project, File #PP10-068 Grant Application.

/s/  
JOHN STUFFLEBEAN  
Director, Environmental Services

For questions please contact Michele Young, Organics Program Manager, at 408-975-2519.