

REPORT FROM

## OFFICE OF THE CITY ADMINISTRATIVE OFFICER

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Date: July 29, 2011

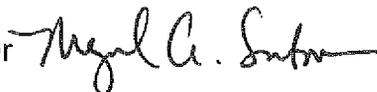
CAO File No. 0610-03698-0000

Council File No. 10-1947

Council District: All

To: The City Council  
The Mayor

From: Miguel A. Santana, City Administrative Officer



Reference: Bureau of Sanitation Clean Water Program Status Report dated March 24, 2011 and subsequent status updates.

Subject: **PROPOSED ADJUSTMENTS TO THE SEWER SERVICE CHARGE AND OTHER FEES SUPPORTING THE CLEAN WATER PROGRAM**

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### SUMMARY

The Department of Public Works, Bureau of Sanitation (Bureau) requests authority to adjust various fees associated with the Clean Water Program (CWP) including the Sewer Service Charge (SSC), Quality Surcharge Fees (QSF), Industrial Waste Fees, Septage Fees and the Sewerage Facilities Charge. Fees are captured in the Sewer Construction and Maintenance (SCM) Fund to appropriately fund various components of the CWP, inclusive of capital and operations and maintenance (O&M) expenditures. This Office recommends a five year series of rate increases for the SSC at 6.5 percent each year for the first three years and 7.5 percent each year for the fourth and fifth year. Additional detail on the SSC and other proposed fee adjustments are provided in Appendix A of this report.

A properly functioning sewer system is critical to the physical, emotional and financial health of a city. When functioning properly, a sewer system seldom draws attention upon itself. The safe disposal of sewage is a core service of government. The goal of the request is to provide sufficient funding to maintain, and potentially improve, the overall condition of the City of Los Angeles' sewer system.

Currently, one gallon of sewage is being treated at a cost of 0.44 of one cent. To put this in perspective, treating the sewage from flushing a toilet costs 1.3 cents, from taking a five minute shower costs 5 cents, and from running a dishwasher costs nine cents. The current average single-family monthly bill is \$29.88. A proposed rate increase would increase that cost by less than two dollars in the first year and \$12 by the end of five ears.

As with other critical municipal services, the sewer system is experiencing a challenging financial environment such that the existing level of revenue is insufficient to maintain the system properly. The CWP has adjusted by significantly scaling back the capital program, deferring maintenance and reducing staffing and other expenses. Additional reduction opportunities may be feasible but not at the scale needed to support critical needs of the CWP over the next five years. Financial challenges

leading to the Bureau's request for a rate increase includes the following (see Appendix B for more detail):

- Consent decree requirements.
  - ✓ To protect the health and safety of the City, the City is obligated to fund over 300 projects at a cost of approximately \$1 billion for the Collection System Settlement Agreement (CSSA). The last set of rate increases of seven percent per year from 2005 through 2008 were implemented to specifically address the consent decree requirements. At the time, it was envisioned that additional revenue would be needed. However, the rate increases did not extend beyond five years as the City's ability to estimate costs beyond five years is greatly diminished particularly in the labor and construction market, fuel and energy, and the regulatory environment. As a result of the last set of increases, sewer spills were reduced by 80 percent.
  - ✓ Approximately \$117 million in capital projects related to the consent decree are required through 2014. Remaining consent decree requirements include continuation of a minimum average of 60 miles of sewer rehabilitation per year, odor control and supplemental projects; and planning, inspection and cleaning requirements.
- Aging Existing Infrastructure.
  - ✓ The average life of a sewer line is 80 years. The City has over 6,700 miles of sewer lines. Thirty percent of the sewer lines are older than 80 years and over the next decade over half will exceed that life span. Equipment at the treatment plants has an average life of 20 to 30 years. With the current budget, the replacement cycle for conveyance and treatment infrastructure combined is 168 years. Proposed rate increases would enable more timely replacement of the infrastructure, particularly with the more critical needs.
  - ✓ In addition, establishing a proactive replacement program is generally less expensive than responding to emergencies. For example, a single sewer failure in the northeast area of the City cost \$17 million. The cost of a rehabilitation project that might have prevented the spill was estimated at \$2 million.
- Operations and Maintenance costs.
  - ✓ O&M includes the various staffing and overhead costs for implementing departments, contract services, utilities and other expenses and total approximately \$318 million, or 44 percent of the CWP. These costs are expected to increase about 19 percent to \$378 million over the next five years due to inflationary increases that exceed reductions and efficiencies.

- Revenue Issues.
  - ✓ SCM revenues have come in below budget in recent years due to economic conditions and reduced water usage. In the last fiscal year, receipts were \$43 million below the planned level of \$520 million, a reduction of about eight percent.
  - ✓ With limited grant funding for clean water programs, the City now funds most of its sewer capital projects with sewer revenues and debt financing.
  - ✓ The SCM is owed approximately \$24 million in available Federal and State reimbursements which has been held in retention by the State until close out of the program. The final project was reportedly completed last month. Additionally, this Office is working with the State to obligate approximately \$11 million in indirect cost reimbursements. The total of \$35 million is anticipated to be received incrementally over the next five years. An additional \$10 million in earthquake related expenditures are pending resolution and reimbursement from the General Fund. This Office recommends paying \$4 million now and reducing the pending liability to \$6 million.

In March 2011, the Bureau proposed three options for raising additional revenue:

- A five year series of rate increases at 8.5 percent per year;
- A seven year series of rate increases at 7.5 percent per year; and,
- A ten year series of rate increases at 5.5 percent per year for each of years one and two, 8.5 percent per year for each of years three through five, and 7.5 percent per year for each of years six through ten.

In May 2011, the Bureau revised its rate projections to reflect updated information from this Office for future salary, pension and health care costs and reassessing certain financial metrics, resulting in the following rate modifications but in support of a ten-year period, which it presented to the Energy and Environment Committee:

- A ten year series of rate increases at 4.5 percent per year for each of years one and two, and 7.5 percent per year for each of years three through ten. It should be noted that this proposal anticipates more debt in the initial years of the rate increase or would otherwise backload capital infrastructure improvements into the latter years.

The Bureau, with the assistance of this Office, the Council and the Mayor, has been proactive in managing costs and attempting to minimize any potential rate increase. In 2009, the Bureau had planned to return for an additional rate increase to provide the remaining funding for the capital projects required under the consent decree. However, realizing that the ratepayers were in the midst of one of the most difficult economic times in recent history, the Bureau instead decided to focus on reducing costs to ensure that operations were as efficient as possible before considering rate increases. For example, the Bureau:

- Reduced operating costs by approximately \$27 million (four percent) in the last two years;
- Reduced staffing levels by 30 percent from a high of 1,764 positions in 1993-94 to 1,243 positions in 2011-12 (the majority, 200 positions, were eliminated in the last three fiscal years). These reductions have been sustained through operational streamlining and the automation of various plant functions;
- Restructured \$2.9 billion in debt, thereby providing \$416 million in debt service savings (\$15 million annually).
- Reduced the capital program temporarily and strategically prioritized capital projects so that a reduction in spending would also appropriately manage risk.

This Office was asked by the Energy and Environment Committee to report back on the Bureau proposal. Therefore, we have reviewed the proposal and recommend:

- A five year series of rate increases.
  - ✓ Our review adjusted the assumptions in growth of labor costs to be consistent with newly revised labor agreements and adjusted for an inadvertent duplication of costs.
  - ✓ Proposed rate increases are consistent with the last set of SCM rate increases of seven percent and with the median of 6.4 percent for the Far West region and 6.5 percent for large sized utilities (Fitch Special Report, January 2011).
  - ✓ Funding for the capital program is provided up front to enable more pay-as-you-go capacity and reduce burden on debt.
  - ✓ The City's ability to reasonably forecast beyond five years has not changed. Seven and ten year forecasts are more speculative than five and may not provide for additional financial stability, particularly with regard to volatility in certain costs such as labor and overheads, construction and materials, chemicals, fuel and energy, and requirements from new regulations (see also Appendix C);
- Development of a Sewer Connection Loan Program as proposed by the Bureau;
- Reduction of 25 vacant positions within the CWP, totaling approximately \$3 million in salary and related costs (see also Appendix E), to increase cash capacity for the capital program and reduce reliance on debt; and,
- Evaluation of medium to long-term strategic opportunities to reduce costs and manage future rate increases that have been identified and are included in Appendix F.

## RECOMMENDATIONS

That the Council and the Mayor:

1. Instruct the Bureau of Sanitation to:
  - a. Increase the Sewer Service Charge (SSC) annually for a period of five years by 6.5 percent beginning as early as January 1, 2012, and 6.5 percent effective July 1 in each of fiscal years 2012-13 and 2013-2014, and 7.5 percent effective July 1 in each of fiscal years 2014-2015 and 2015-2016;

- b. Develop a proposed Sewer Connection Loan Program based on stakeholder input and report back with program details;
  - c. Adjust the low-income surcharge from the current rate of 0.84 percent to 1.64 percent to fully fund the low income subsidy provided to SSC customers, as required by the Clean Water Act;
  - d. Adjust the SSC of public agencies to eliminate exemption of the capital component of the SSC so they are billed on the same basis as all other customers;
  - e. Adjust the Quality Surcharge Fee (QSF) for the amounts specified in Table A-2 of this report;
  - f. Modify the Industrial Waste Fees for increased cost recovery, as specified in Table A-3 of this report;
  - g. Modify the Septage Fees for full cost recovery, as specified in Table A-4 of this report;
  - h. Modify the Sewerage Facilities Charge, as specified in Table A-5 of this report;
  - i. Print and distribute notices to all affected customers in compliance with Proposition 218;
  - j. Assume the eligibility verification process for SSC low-income subsidies from the Department of Water and Power;
  - k. Identify 25 vacant positions in the Clean Water Program for deletion and work with the City Administrative Officer for inclusion in the 2012-13 budget process;
  - l. Evaluate, with the assistance of the City Administrative Officer and Chief Legislative Analyst, strategic options to minimize future rate impacts by increasing revenue and/or reducing costs for the Clean Water program, as included in Appendix F of this report;
2. Request the City Attorney to prepare and present ordinances for pertinent fee adjustments, and finalize ordinances for approval after required public hearings have been held; and,
  3. Reduce a General Fund obligation of \$10 million in SCM expenditures for Northridge earthquake recovery by \$4 million (reflects an offset of prior years related cost adjustments from 2008-09 and 2009-10), thereby reducing the Northridge obligation to \$6 million (with intent to address this amount over the next four years).

## **FISCAL IMPACT STATEMENT**

The Sewer Construction and Maintenance Fund is a special enterprise fund with no reliance on the General Fund. Proposed rate adjustments for various components of the Clean Water Program, inclusive of the Sewer Service Charge which will increase rates over a five year period by 6.5 percent in the first two years and 7.5 percent in the following three years, will result in additional revenue of \$582 million.

The recommendations are in compliance with the City's Financial Policies in that user charges and fees are proposed at a level to support the full cost of operations for the Clean Water Program, including operating, capital and financing costs. The recommendations also reduce a pending General Fund obligation of \$10 million to the SCM by \$4 million, and indicate the intent of the City to address the remaining obligation of \$6 million over the next four years.

## **FINDINGS**

The Clean Water Program (CWP) serves over four million people in the City of Los Angeles and 29 contract cities, encompassing a service area of approximately 600 square miles. The span of services incorporated in CWP operations include wastewater conveyance and treatment, water reclamation, industrial wastewater management, environmental monitoring, and a capital program to meet the current and future infrastructure needs of the system.

The wastewater collection and treatment system is operated and maintained by the Bureau of Sanitation and includes 6,700 miles of sewers, 44 pumping plants, three water reclamation plants and one treatment plant. The Hyperion Treatment Plant and Terminal Island Water Reclamation Plant (TIWRP) process 370 million gallons of wastewater per day. The majority of biosolids from these plants are beneficially reused. The Donald C. Tillman and Los Angeles-Glendale Reclamation Plants process 75 million gallons per day, and over a fifth of that is processed into reclaimed water for use by a number of contract users. Treatment plants operate around the clock and, in the interest of public health and safety, must be staffed and maintained to provide uninterrupted service coverage.

The cost of operating the City's sewer system is borne by users of the system based on the amount of wastewater discharged into sewers and treated at the City's treatment plants. Funding for the system is provided by the Sewer Construction and Maintenance Fund (SCM). Monies deposited into the SCM are expended for sewer and sewage-related purposes including industrial waste control, water reclamation, funding of wastewater revenue bonds and funding of the Sewer Operations and Maintenance Fund and the Sewer Capital Fund. The bond covenants associated with the debt issued by the Clean Water program prioritize the payment of obligations as follows, which are paid for from fees and charges to the SCM: 1) operations and maintenance (O&M); 2) debt service, and 3) capital costs.

For ease of reference, the rate proposal and other major elements of this report are divided into the following appendices:

- A – Proposed Rate Adjustments
- B – Major Cost Drivers for Proposed Rate Increases
- C – Potential Areas of Cost Pressure
- D – Financial Sustainability
- E – Budget Management to Offset Rate Burden
- F – Strategic Opportunities to Manage Future Rate Increases

*MAS:ER:06120014*

Attachments

## Proposed Rate Adjustments

A description of the fees and recommended adjustments follows. The rate proposal assumes restoring sufficient funding for the capital program to address the highest risk needs, to cover debt service obligations, O&M costs, and to maintain financial capacity in support of the CWP's credit rating.

The Bureau considered a variety of options for a multi-year spread, including five, seven and 10 years. (Rating agencies generally consider multi-year rate increase structures to be stronger than annual with preference in the five to seven year range.) Multi-year rate increases also help reduce administrative burden and costs for Proposition 218 compliance recognizing the production and mailing of notifications for rate adjustments. Our recommendations reflect a five-year structure for the following reasons:

- ✓ Provides for sufficient revenue and a reasonable distribution of the rate burden, between 6.5 percent and 7.5 percent over the term (described further in this report);
- ✓ Costs can be reasonably estimated within this time frame. While a seven or ten year set of increases could provide for some additional financial stability, that is not guaranteed as accuracy of estimates and related revenue requirements beyond five years diminish significantly.
- ✓ A shorter term, such as three years, may have the benefit of more frequent Council and stakeholder review but at a costlier expense, considering the more than 37 community engagement events and approximately \$440,000 in printing and mailing costs that are anticipated for the current effort. A three year term is also likely to have the highest financial impact on customers as CWP costs could be condensed over a shorter period to compensate for transition gaps between rate periods.

### 1. Sewer Service Charge (SSC):

The SSC recovers the cost of operations, maintenance and replacement through a user charge system based on actual or estimated use of the clean water system. Adjustments to the SSC include increases to meet projected costs (including adjustments to provide funding for a sewer connection revolving fund program), linkage of the commercial percentage discharge value for Commercial Customers, full billing of public agencies, and surcharge adjustments to recover the full cost of low-income subsidy assistance.

#### • User Charges

The SSC is a charge to all customers on the volume of sewage discharged to the sewer system from a premises. For residential users, the charge is applied to each customer's minimum daily water usage reflecting winter water use. For commercial customers, the charge is applied to 90 percent of total metered water usage. The proposal increases the fee incrementally by 6.5 percent and 7.5 percent annually for the next five years from the current rate of \$3.27 per hundred cubic feet (hcf).

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Charge/hcf	\$3.27	\$3.48	\$3.71	\$3.95	\$4.25	\$4.56
% increase	0.0%	6.5%	6.5%	6.5%	7.5%	7.5%
Typical Monthly SFR*	\$29.88	\$31.82	\$33.89	\$36.09	\$38.80	\$41.71
Cumulative Increase	\$0.00	\$1.94	\$4.01	\$6.21	\$8.92	\$11.83
Annual SFR	\$359	\$382	\$407	\$433	\$466	\$501
Cumulative Increase	\$0.00	\$23.31	\$48.13	\$74.56	\$107.05	\$141.97

\*Actual charges are driven by customer consumption.

These increases include a 0.5 percent increment for funding to initiate a revolving fund loan program for replacement of sewer lateral linings and conversions from septic tank systems to sewer hook ups. This is expected to generate approximately \$36.9 million in the first five years of the program which would fund approximately 2,460 loans at an average loan amount of \$15,000. It is anticipated that a proposed ordinance addressing On Site Wastewater Treatment Systems (OWTS) will result in increased residential sewer hook ups to the City's sewer system.

The typical bill for a single-family household would increase from \$29.88 per month under the current rate to \$41.71 by 2015. Citing comparisons contained in the Bureau's report, the proposed rates remain below major statewide municipalities, including San Francisco (\$85.20) and San Diego (\$48.06). The Orange County Sanitation District's charge is approximately \$36.45.

Los Angeles County as a whole can have widely ranging costs because the Sanitation District (LACSD) charges different amounts in each of its districts for operation of the regional system, which includes treatment plants and main trunk lines. The cost of operating this system is passed on proportionately to each property owner and averages \$18.40 which includes a property tax benefit (which the City does not receive). Customers are also billed by their city or County Public Works for the local sewer system. These costs can vary widely. Following is a sample of rates in the northern greater Los Angeles and Ventura county areas.

COMMUNITY	SERVICE CHARGE	
	\$/month	\$/year
Santa Clarita <sup>a</sup> (2013-14)	\$ 20.58	\$ 247.00
Ventura (current)	\$ 25.00	\$ 300.00
Glendale (current)	\$ 33.70	\$ 404.40
Los Angeles (current)	\$ 35.24	\$ 422.83
Dist. 14 <sup>b</sup> (Lancaster) (2014-15)	\$ 39.00	\$ 468.00
Dist. 20 <sup>c</sup> (Palmdale) (2014-15)	\$ 44.58	\$ 535.00
Ojai (2010-11)	\$ 52.07	\$ 624.84
Santa Paula (current)	\$ 77.21	\$ 926.52
Fillmore (current)	\$ 82.00	\$ 984.00

Data furnished by Prag Advisors

- Commercial Customers

This proposal changes assumptions for non-irrigation water use among commercial customers, including apartments with five or more units, to recognize that 93 percent of a property's water flow returns to the sewer, as opposed to the current 90 percent. This is attributed to water conservation measures implemented in the last few years including watering restrictions (suggesting that customers are now using less than 10 percent of their water for irrigation) and shortage pricing. The proposed level is expected to increase revenues by \$9 million per year.

- Public Agencies

The Bureau's proposal also ceases exemptions provided to State and County education offices, inclusive of community college districts and the California State University and University of California systems, for the capital component of the SSC (they are currently only charged for O&M). This stems from changes in State legislation from 2006 that more clearly define capital fees that cannot be charged to these public agencies. The Bureau, in discussions with the City Attorney, has determined that no portion of the SSC meets revised definitions in this legislation. This is expected to result in additional revenue of \$2.5 million annually. (Bureau staff has stated that LACSD has also incorporated changes to charge public agencies the maximum allowable fees).

- Low Income Subsidy/Surcharge Program

Low income subscribers receive a 31 percent subsidy for the first 900 cubic feet of sewage every month which is covered by a surcharge of 0.84 percent on all other customers. The Federal Clean Water Act requires that if a low income subsidy is offered, it must be recovered by a surcharge on the remaining customers and not absorbed as part of the general rate. The number of subscribers has increased from 53,089 in 2008 to 80,056 in early 2011. As the number of low-income participants increases, the customer base contributing to the surcharge decreases which can have a compounded effect on costs.

The current surcharge of 0.84 percent is short of capturing the cost. In order to continue providing the subsidy at this level, the low income surcharge is proposed for an increase to 1.64 percent. This is based on the current volume of sewer flows associated with low-income customers (see Attachment 1). The Bureau requests authority to update this surcharge up to a two percent maximum through the 218 notification process. The Bureau also recommends that the eligibility verification process be transferred from DWP to Sanitation, as has been done with the Solid Waste Fee Lifeline program.

2. Quality Surcharge Fees (QSF):

This charge applies to customers discharging sewage above domestic strength (ie, normal household discharge) and generally does not apply to residential customers and many small businesses. Customers in this category require an industrial waste permit and include any industrial user such as metal plating, dye houses, properties with cooling towers, pharmaceutical manufacturers, laboratories, laundries, bakeries, etc. This fee must be adjusted with any changes in the SSC. The proposed fee revisions are as follows.

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Charge/hcf	\$0.349	\$0.370	\$0.392	\$0.416	\$0.445	\$0.476
Charge/hcf	\$0.351	\$0.372	\$0.394	\$0.418	\$0.447	\$0.479
% increase	-	6.0%	6.0%	6.0%	7.0%	7.0%

3. Industrial Waste and Septage Fees:

These are fees for the costs of administering the industrial waste pretreatment program and Septage Receiving Stations and do not apply to residential and most commercial customers. Industrial waste fees fund the operation of the pretreatment program, that is, the work involved with permitting and inspecting businesses that discharge industrial waste to the sewer system. These fees have not been adjusted in more than 15 years. Increases are proposed in the same percentage increments as the SSC. The revised fees are included in Table A-3 at the end of this appendix.

Septage Receiving Stations are locations where waste haulers can discharge sewage pumped from septic tanks or portable toilets. The fees for this program recover the costs of permitting waste haulers, operating receiving stations, and providing treatment services for the septage. Proposed adjustments bring this program to full cost recovery, ensuring that other residential and commercial customers are not subsidizing these costs, and apply a uniform rate for all users (the current structure charges separate fees for customers operating within and outside the City). The revised fees are as follows.

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Septage (\$/gallon)	\$0.0496	\$0.0528	\$0.0542	\$0.0557	\$0.0572	\$0.0587
Permit Fee (\$/year)	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000	\$4,500

4. Sewerage Facilities Charge (SFC)

This is the charge to recover the cost of wastewater system capacity required by new sewer connections and increases in capacity by current system users. Proposed unit costs are updated to reflect changes in flow and load elements of collection and treatment system assets. The revised charges are in the table that follows. For the typical single-family household, the proposed SFC is \$950, a 27 percent increase from

the current \$747 rate. This level is still substantially lower than neighboring jurisdictions, such as Pasadena's charge of \$1,595, Los Angeles County's charge of \$4,500 and Orange County's charge of nearly \$5,000. These fees are one-time charges that generally apply to new developments and rehabilitation projects and otherwise do not affect existing customers.

Parameter	Current Unit Cost	Proposed Unit Cost
Flow	\$262/100 gallons per day	\$344/100 gallons per day
Biochemical Oxygen Demand (BOD)	\$188/pounds per day	\$159/pounds per day
Suspended Solids (SS)	\$171/pounds per day	\$147/pounds per day

### Projected Revenue

Approval of the fees and recommendations of this report would result in \$582.4 million in additional revenues as shown in below.

Fee	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Sewer Service Charge	17.8	73.0	109.8	154.6	203.8	559.0
Quality Surcharge Fee	0.3	1.1	1.7	2.5	3.3	9.0
Industrial Waste & Septage Fees	0.6	1.3	1.8	2.5	3.2	9.4
Sewerage Facilities Charges	1.0	1.0	1.0	1.0	1.0	5.0
Total	19.7	76.4	114.4	160.6	211.3	582.4

### Implementation

The SSC, SFC, Industrial Waste Inspection and Control Fees, Bonded Sewer Fees and other miscellaneous fees are established by City ordinance and become effective after a 30 day posting period. The QSF is established by the Board of Public Works and becomes effective after a waiting period of 30 days (absent any Council objection). The modeling assumptions assume an effective date of January 1, 2012 for the rate increases.

Fees and charges for sewer, water and refuse collection services are exempted from voter approval under Proposition 218 (to the extent that rate payers are not charged above the cost of service provided to them). The City Attorney has advised that Proposition 26 does not apply to fees that are already covered by Prop 218. The SSC is subject to notification requirements under Proposition 218.

Council authorization is required for the issuance of the Proposition 218 notice, which details the amount and duration of the proposed rate adjustments. An additional public hearing is held 45 days following the notification process. After the public hearing and concurrence by the Mayor, the enabling ordinance can be posted. The ordinance has a 30-day public review period, after which the rates and other provisions can take effect.

TABLE A-3

Proposed Changes to IW Fees

	Last update	Current	Units	Revenue for 10-11	2011-12		2012-13		2013-14		2014-15		2015-16						
					Fee	Revenue	Fee	Revenue	Fee	Revenue	Fee	Revenue	Fee	Revenue					
IW permit application	7/16/1991	\$356	1,550	551,800	6%	\$377	\$584,908	6%	\$400	\$620,002	6%	\$424	\$657,203	7%	\$454	\$703,207	7%	\$485	\$752,431
I&C fees	1/1/1995																		
Class 1		\$244/yr	11,375	2,775,500		\$259	\$2,942,030		\$274	\$3,118,552		\$291	\$3,305,665		\$311	\$3,537,061		\$333	\$3,784,656
Class 2		\$488/yr	930	453,840		\$517	\$481,070		\$548	\$509,935		\$581	\$540,531		\$622	\$578,368		\$665	\$618,85
Class 3		\$732/yr	2,150	1,573,800		\$776	\$1,668,228		\$822	\$1,768,322		\$872	\$1,874,421		\$933	\$2,005,630		\$998	\$2,146,025
Class 4		\$976/yr	70	68,320		\$1,035	\$72,419		\$1,097	\$76,764		\$1,162	\$81,370		\$1,244	\$87,066		\$1,331	\$93,161
Class 5		\$1,220/yr	650	793,000		\$1,293	\$840,580		\$1,371	\$891,015		\$1,453	\$944,476		\$1,555	\$1,010,589		\$1,664	\$1,081,330
Class 12		\$2,928/yr	140	409,920		\$3,104	\$434,515		\$3,290	\$460,586		\$3,487	\$488,221		\$3,731	\$522,397		\$3,993	\$558,965
Class 1D		\$49/yr	1,600	78,400		\$52	\$83,104		\$55	\$88,090		\$58	\$93,376		\$62	\$99,912		\$67	\$106,906
			<u>16,915</u>	<u>6,152,780</u>			<u>\$6,521,947</u>			<u>\$6,913,264</u>			<u>\$7,328,059</u>			<u>\$7,841,024</u>			<u>\$8,389,895</u>
SIU	7/1/1993																		
Group I		\$4,191/yr	35	146,685		\$4,442	\$155,486		\$4,709	\$164,815		\$4,992	\$174,704		\$5,341	\$186,933		\$5,715	\$200,019
Group II		\$4,054/yr	85	344,590		\$4,297	\$365,265		\$4,555	\$387,181		\$4,828	\$410,412		\$5,166	\$439,141		\$5,528	\$469,881
Group III		\$2,219/yr	30	66,570		\$2,352	\$70,564		\$2,493	\$74,798		\$2,643	\$79,286		\$2,828	\$84,836		\$3,026	\$90,774
Group IV		\$3,466/yr	8	27,728		\$3,674	\$29,392		\$3,894	\$31,155		\$4,128	\$33,024		\$4,417	\$35,336		\$4,726	\$37,810
Group V		\$2,516/yr	45	113,220		\$2,667	\$120,013		\$2,827	\$127,214		\$2,997	\$134,847		\$3,206	\$144,286		\$3,431	\$154,386
Group VI		\$2,359/yr	65	153,335		\$2,501	\$162,535		\$2,651	\$172,287		\$2,810	\$182,624		\$3,006	\$195,408		\$3,217	\$209,087
			<u>268</u>	<u>852,128</u>			<u>\$903,256</u>			<u>\$957,451</u>			<u>\$1,014,898</u>			<u>\$1,085,941</u>			<u>\$1,161,957</u>

Additional revenue

453,402

934,009

1,443,452

2,073,463

2,747,575

## Major Cost Drivers for Proposed Rate Increases

Consent Decree Requirements: The CSSA established a 10-year program of sewer inspection, maintenance and rehabilitation that must be completed by June 30, 2014 with the goal of reducing sewer system overflows. Rate adjustments were implemented through a four year period beginning in 2005 to incrementally address CSSA requirements and new regulations going into effect at the time such as de-nitrification at treatment plants. It was expected that a second set of rate adjustments would be required to include funding for the second half of the CSSA and an aging infrastructure. Sewer spills through the first six years of the CSSA have been reduced by 80 percent. Remaining CSSA work through 2014 includes:

- ✓ New three-year rolling average cycle of 60 miles per year for sewer renewal – Approximately 50 projects worth up to \$90 million (Attachment 2, “Group 2 SSRP” projects);
- ✓ Odor control - the construction of three air treatment facilities was negotiated in the CSSA. Two of them are being completed under current funding. The cost of the third facility on Mission Street is \$15 million with funding anticipated in 2012-13 over a three year period.
- ✓ Annual planning, inspection and cleaning requirements - \$5 million
- ✓ Supplemental Environmental Projects (SEP) - \$7 million

Activities contingent on additional revenue from rate adjustments include the 60-mile program, completion of air treatment facilities and planning, inspection and cleaning requirements for a total of \$117 million. If the City is unable to fully comply with the CSSA, possible outcomes include: 1) the City renegotiates an extension to the compliance schedule with the CSSA plaintiffs, subject to court approval, with potentially more mandates; 2) the City is exposed to penalties for incomplete projects; and/or, 3) the CSSA \$550 million lawsuit is reopened.

Aging Clean Water Infrastructure: Insufficient investment in wastewater infrastructure increases the risk of emergency failures which is detrimental to public health and safety. It also results in significantly higher costs for repair than through regular upgrades and maintenance due to costs to mobilize emergency contract work and liability claims on damaged private property. In the past two years, the Bureau has deferred projects worth over \$100 million that addressed the least risky conditions. Although this has helped reduce costs in the short term, continued deferral of these projects can lead to additional failures and costly repairs. The City fell behind on sewer upgrades in the 1990s, leading to regular spills of raw sewage onto private property, streets and beaches. In one instance, a sewer failure in the northeast area incurred a cost of \$17 million. Comparatively, the cost of a rehabilitation project that might have prevented that failure was estimated at \$2 million.

To illustrate the current state of the wastewater collection system, the City has over 6,700 miles of sewer footprint. The average life of a sewer line before needing major repairs is 80 years. The Bureau reports that about 30 percent are older than that. Over the next decade, more than half of the City's sewer lines will exceed that threshold. A Clean Water System Capital Improvement Program (CIP) is prepared annually for the system which is included for funding in the City's adopted budget. The CIP funding that is needed in order to meet current service levels with a manageable risk factor is approximately \$1.2 billion over the next five years.

The proposed rate increases support capital funding of approximately \$236 million annually, including project and labor costs, to address the highest risk projects, including legal mandates, from a combination of cash and debt (see Tables B-1 and B-2). Part of the capital program will be funded by additional revenues from rate adjustments. The proportion of debt in the capital program decreases as cash becomes available from rate increases. Currently, about two-thirds of financing for the capital program comes from debt. Over the collective period of rate increases, the debt composition is expected to be around 44 percent. Bond rating agencies favor capital programs with a reasonable mix of cash and debt. The five-year proposal provides more pay-as-you-go capacity to the capital program in the early years of the rate adjustments. Fees spread out over a longer period may require more up front debt financing and/or backload the capital program into the latter years.

Description	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	5 yr total	5 yr % Debt
Net Debt Financing	191,225	55,380	127,950	130,359	106,975	103,897	524,561	43%
Grants / FEMA	1,000	16,000	16,000	9,000	0	0	41,000	3%
Contractors - Capital Payments	18,069	12,379	12,906	14,129	15,185	15,632	70,231	6%
System Revenues	41,319	64,274	94,888	113,709	118,115	146,099	537,085	44%
Interest Income	5,311	3,600	3,275	3,744	4,028	3,652	18,299	1%
Projected Fund Balances	7,976	34,467	-21,019	-10,841	26,797	1,317	30,721	3%
Total	264,900	186,100	234,000	260,100	271,100	270,597	1,221,897	
% Debt Financed	72%	29%	55%	50%	39%	38%		

Description	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	5 yr Total
Major Capital Improvements							
Collection System	64,541	44,430	68,308	74,140	77,681	86,815	351,374
Pumping Plant	500	2,108	10,989	19,748	19,136	4,823	56,804
Hyperion Treatment Plant	72,023	39,656	40,446	37,353	48,218	45,121	210,794
LA-Glendale Water Rec. Plant	6,869	176	9,450	8,378	5,657	5,006	28,667
Tillman Water Reclamation Plant	13,005	5,475	5,405	7,306	6,765	5,318	30,269
Terminal Island Treatment Plant	3,744	3,708	2,520	8,500	10,819	18,054	43,601
System Wide Improvements	24,818	15,447	19,256	24,245	17,145	15,952	92,045
Total Major Capital Improvements	185,500	111,000	156,374	179,670	185,421	181,089	813,554
Capital Labor							
General Services	3,887	3,320	3,428	3,548	3,687	3,797	17,780
Contract Administration	8,550	6,332	6,569	6,864	7,257	7,474	34,496
Engineering	36,671	36,474	37,832	39,514	41,747	42,999	198,566
Sanitation	6,498	6,551	6,769	7,016	7,311	7,530	35,177
All Other Departments	3,782	4,017	4,156	4,320	4,527	4,665	21,685
Related Costs	20,012	18,406	18,872	19,168	21,150	23,043	100,639
Total Capital Labor	79,400	75,100	77,626	80,430	85,679	89,508	408,343
Total Capital Improvement Program	264,900	186,100	234,000	260,100	271,100	270,597	1,221,897

No change to the current level of funding for the CWP diminishes the City's covenant responsibility to maintain and preserve the CWP in good repair and working order. As expenditures outpace revenues, the capital program is the first to be impacted as it has last priority on available funds but represents the largest area of potential liability for future and costly sewer failures due to aging infrastructure. There are 65 projects with a construction cost of \$471 million that are at various stages of development and are expected to be completed with current resources (Attachment 2, "Group 1" projects). Impacts on the capital program without additional revenues, apart from consent decree requirements, include:

- Various projects - approximately 66 projects with a cost of \$1.36 billion cannot begin construction (Attachment 2, "Group 2" non-SSRP projects), including the single largest project - Northeast Interceptor Sewer Phase II project (\$315 million), major sewer rehabilitation and replacements at various locations, treatment plant improvements and consultant support.
- Increased risk of major failures incurring emergency repairs. For large sewer collapses, it is estimated that emergency repairs can cost up to ten times the cost of planned replacement. Emergency collapses also typically result in damage to private and public property, waterway contamination (storm drains and beaches), and odor complaints, traffic disruptions and other public safety hazards and nuisances.

#### Operations and Maintenance (O&M):

O&M comprises a significant portion of the CWP, funded at \$318.3 million (including operating reserve), or 44 percent from a total program of \$716.7 million. O&M includes the various staffing and overhead costs for implementing bureaus and departments, contract services, utilities, and other project and operation related expenses. These costs are expected to increase about 19 percent to \$378 million, over the next five years due to inflationary increases that exceed cost reduction measures.

The Bureau's rate model incorporates annual incremental increases to reflect growth in salary, pension and healthcare costs. Our best assumptions for escalation in these areas were provided to the Bureau which are reflected in the proposed rate revisions. Cost relief as a result of recently negotiated labor concessions for Coalition of City Unions members include, but are not limited to, a first-time contribution to retiree healthcare, reduction and/or deferral of cost of living adjustments and salary step advances, and time off in lieu of cash for sick and overtime. These changes have the effect of reducing direct and indirect costs and furlough requirements for the various implementing departments.

It should be noted that growth estimates on the labor side continue to evolve as an actuarial analysis on long term pension impacts is expected around November 2011. In the event that labor costs are higher than projected, contingency measures should be in place to offset costs and can include deletion of vacant positions, increased use of as-needed, part-time workers, downgrades of positions, and/or reduction in expense accounts. Staffing costs in the rate assumptions reflect budgeted salaries which include funded vacancies. The departments with the most CWP vacancies include Sanitation (approximately 160 vacancies) and Engineering (approximately 33 vacancies), each with just over a 10 percent vacancy rate.

Non-labor costs, such as contract services, expense and equipment costs, are projected at an annual growth of three percent. This is a reasonable assumption given that inflation nationally has fluctuated above and below three percent over the past ten years, as shown in the following chart.

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
3.38%	2.83%	1.59%	2.27%	2.68%	3.39%	3.24%	2.85%	3.85%	-0.34%	1.64%

Revenue Issues:

- Revenue Decline - The CWP has experienced significant revenue reductions in recent years due primarily to economic conditions and water conservation efforts. SSC revenues were budgeted at \$520 million in 2009-10, reflecting the full effect of rate increases through 2008, but are coming in closer to \$477 million, a difference of \$43 million. Over the last few years, the CWP has experienced an increasing shift in customers to low-income discount programs which are subsidized for approximately one third of their sewer charges. Between 2005-06 to 2010-11, approximately six percent of general customers switched to low income programs. This represents approximately 29,000 accounts from an average of 466,000 active single-family accounts through that period.

Since the June 2009 enactment of 15 percent Shortage Year Rates, water conservation has been 19 percent. Because sewer service charges are calculated based on water use for the majority of customers, water conservation directly impacts SSC revenues. In addition, 88 percent of the CWP revenues are flow based. It is unclear whether the CWP has experienced the full effect of water conservation as revenues continued on a downward pattern over the last three fiscal years (\$477 million in 2010-11 compared to \$481 million in 2008-09).

The CWP has adjusted for declining revenue by significantly scaling back the capital program, deferring maintenance and reducing staffing and other expenses. In the absence of a rate increase and/or cost cutting, the CWP would increase reliance on cash reserves to maintain operations and debt service and could result in significant financial problems in the event of unanticipated revenue drops which would slow down or halt construction projects underway.

FEMA/CalEMA Reimbursements: The proposed rate increases assume that approximately \$45 million related to Northridge Earthquake sewer repairs and improvements would be reimbursed to SCM by the end of FY 2013-14. The \$45 million amount includes: 1) \$24 million in obligated disaster grants held in retention by the State until all Public Works Northridge Earthquake projects are closed out by the California Governor's Authorized Representative. The last sewer hazard mitigation project was just completed in July 2011; 2) an estimated \$11 million for Northridge Earthquake sewer repair indirect costs (this Office is working with CalEMA to obligate funding pending State review of cost data); and 3) \$10 million from the General Fund owed to SCM as part of a FEMA advance payment

which was applied to General Fund departmental earthquake emergency repairs in 1994, instead of reimbursement to SCM at the end of the program. This \$10 million shortfall is shown as "an advance to other funds" in the SCM financial statements in anticipation that the General Fund would reimburse the SCM for eligible work from the advance fund receipts. Given this liability, we recommend applying a credit of \$4 million in SCM related cost adjustments corresponding to fiscal years 2008-09 and 2009-10, as reviewed by the SCM auditor, to reduce the potential obligation to \$6 million with the intent to address this remaining obligation over the next four years.

- Diminished Grants Support: Clean water federal grants were a significant source of funding for major capital projects in prior decades which reduced burden on sewer charge revenue, therefore staggering the need for rate adjustments. With shrinking resources over the years, the City now funds most of its capital projects with sewer revenues and debt financing. We do not project that federal subsidies can be anticipated at any significant level in the foreseeable future.

## Potential Areas of Cost Pressure

There are a number of areas where the CWP has historically experienced volatility in costs due to changing market conditions, environmental considerations and/or the regulatory environment which could continue to place cost pressure in the out years. These include but may not be limited to:

- Biosolids disposal: The City sends most of its wastewater biosolids to the City-owned Green Acres Farm in Kern County for land application, which is the least cost option for disposal of biosolids. The voter approved Measure E bans the application of biosolids on farm land in Kern County. The City along with other plaintiffs have filed a legal challenge against this measure in state court and has been granted a preliminary injunction that allows biosolids recycling to continue at the farm while the state case is decided. While the court's opinion stated that the City was likely to prevail on the merits of its claims, a decision otherwise would require the City to pursue alternative disposal practices at greater cost, approximately \$5 million more annually. These would include costlier landfilling at greater distances, composting, and waste-to-energy applications, where feasible.
- Construction costs: Cost drivers for construction activity include materials and demand. To address construction volatility, the capital project estimates include a five percent annual escalation. This is intended to protect the CWP from fluctuations in the cost of materials or even shortages of labor like those seen in the post-Hurricane Katrina reconstruction and the years leading up to the Beijing Olympics. Mega projects like Northeast Interceptor Sewer II and GBIS have lower escalation factors but by virtue of size include larger contingencies.
- Energy and Fuel: The Bureau has been able to control energy costs at the Hyperion Treatment Plant through its digester gas-power-steam agreements with the Department of Water and Power, but that agreement is ending in 2015. To compensate, the Bureau has initiated a Digester Gas Utilization Project (DGUP) to develop a beneficial use for digester gas from HTP while providing cheaper power or a revenue stream to offset power costs. At the other three treatment plants, the Bureau is subject to regular DWP rates and increases. Over the past few years, the Bureau has carried out energy efficiency studies at the plants and made improvements to try to keep the power costs down.

Fuel costs are recovered through the Cost Allocation Plan (CAP) rate based on General Services Department procurement. Fuel costs are also built into hauling contracts as part of the hauling rate or as a fuel surcharge. The Bureau does not have much control over fuel costs other than to maintain operations that provide the greatest cost benefit and/or minimize transportation needs, such as negotiating favorable rates for its conventional disposal locations (e.g., Green Acres Farm) or diversion through the TIRE renewable energy project.

- Regulatory Requirements: The CWP is not currently implementing projects to meet new regulations with firm deadlines. However, there are water and air quality issues on the horizon that the City will have to strategically plan for, such as nutrient removal at the Hyperion plant

with an estimated cost of \$1 billion and compliance with existing and new Regional Water Quality Board TMDLs (about 56 total). At this time, it is difficult to predict the full impact of TMDLs on the NPDES effluent limits at the City's four treatment plants. However, it is expected that significant capital improvement may be required to comply with the TMDLs.

Changing regulatory requirements can have an impact on fleet and equipment, as well. For instance, if the Bureau needs to replace equipment or vehicles because they no longer meet Air Quality Management District (AQMD) requirements, unit costs could be higher if the technology is new, or the total costs could be compressed if replacement is needed sooner than an established replacement cycle. This is a reality that the Bureau can only anticipate and plan for through the budget process when new requirements are known. The Bureau also makes every effort to modify existing equipment to meet new requirements where feasible.

Risk factors for an under-funded CWP include permit and/or other regulatory violations from deferred or inadequate maintenance of infrastructure. The Environmental Protection Agency (EPA) through the NPDES permits has regulatory oversight over the discharge from treatment plants and the operation of the collection system. Under the federal code, EPA can issue administrative orders against violators, and seek civil or criminal penalties when necessary, as follows:

- ✓ For a first offense of criminal negligence, the minimum fine is \$2,500, with a maximum of \$25,000 fine per day of violation. On a second offense, a maximum fine of \$50,000 per day may be issued.
- ✓ For a knowing endangerment violation, i.e. placing another person in imminent danger of death or serious bodily injury, a fine may be issued up to \$250,000 and/or imprisonment up to 15 years for an individual, or up to \$1,000,000 for an organization.

While the proposed rates are not in response to any new regulations impacting the CWP over the next five years, the CWP is in a better position to address future requirements with more funding restored to the capital program. Further, this is one area of volatility that argues against longer term rate increases.

## Financial Sustainability

Financial sustainability of the CWP is essential for a proper credit rating. A credit rating is important because the City's ability to borrow funds via bonds at favorable terms for rehabilitation and maintenance of its \$20 billion wastewater system helps keep sewer rates at a sustainable level for its various customers. Moreover, the City is required under the general bond resolution to establish rates and charges for use of the CWP that produce revenues sufficient to cover debt service (1.25x debt coverage) on outstanding bonds. The revenues must also be sufficient to maintain the CWP infrastructure in good working order consistent with standards followed by similarly sized wastewater utilities. A reduced capacity to meet typical wastewater financial metrics, including cash reserves and debt coverage, can have detrimental impacts to the CWP's bond rating and result in limited or more costly access to financial markets or, in the worst case, the City cannot issue wastewater bonds.

### a. Cash Financing

Key considerations for sustaining cash financing capacity include:

- ✓ Maintaining a year end cash balance to provide financial flexibility to manage cash flow fluctuations to fund capital project and operating costs until revenues are received. The CWP has historically maintained adequate cash balances in the system although not as robust as other similarly rated utilities. The average day's cash for AA rated water and sewer issuers per Fitch Investors' April 2010 debt medians was 344 days, while the CWP had 205 days cash as of FY 2009-10. Even with the rate increases, projected cash levels would be around 153 days.
- ✓ Maintaining an appropriate level of cash financing for the CWP capital program. The City does extensive planning for the Clean Water System. The City maintains an ongoing, 10-year capital improvement program (CIP) that is based on an extensive Integrated Resources Plan (IRP) prepared in 2006 that evaluated the needs of the system in conjunction with water reclamation and stormwater management, taking into account the timing and cost of projects based on actual and projected wastewater flow and other factor affecting operations and maintenance of the system.

Funding for the CIP (including labor) has waned in recent years from a high of \$337 million budgeted in 2008-09 to about \$170 million in 2011-12. Under the current financial model, revenue from fees only covers about one-third of that cost. Funding from debt issuance covers the majority.

The CWP must maintain cash on hand (or cash balance) to leverage the financial demands of the capital and O&M programs (to manage cash flow and/or unforeseen costs), and to increase pay-as-you-go ability and reduce reliance on debt, as an indicator of financial flexibility. This can be an important element in a utility's financial rating. The Bureau's March 2011 Status Report recognized a policy of maintaining a minimum cash balance of \$30 million for O&M and \$100 million for capital. The Bureau now supports a minimum cash balance for the capital program established at one-half

of the fiscal year's budgeted CIP to ensure that cash on hand adjusts for the size of the CIP program annually.

b. Debt Capacity

The City had received a rating of AA on its wastewater bonds as of July 2010 when bonds were last issued. The City also has a 0.6 debt ratio, which is considered to be high in comparison to the median of 0.3 for similarly sized utilities. The debt ratio is calculated as total liabilities/total assets which from the 2010 financial statements, is represented as \$2.89 billion in debt load over \$4.49 billion in assets. Debt service comprises 28 percent of the CWP budget.

Contributing factors to the CWP's large debt component include deferred rate adjustments, particularly in the 1990s, and investments made resulting in upgraded facilities with a much higher level of treatment (advanced secondary/tertiary) than comparable wastewater utilities. To illustrate the mounting debt burden, the cost of debt service for outstanding bonds increases by approximately \$14 million annually (excluding refundings), as shown in the chart below.

Table D-1. Bond Redemption and Interest (in Millions)						
	Act 2006-07	Act 2007-08	Act 2008-09*	Act 2009-10	Est 2010-11	Est 2011-12
Change	\$160.0	\$171.6	\$157.7	\$174.1	\$191.1	\$204.1
% Change	-	\$11.5	-\$13.8	\$16.3	\$17.0	\$13.0
	-	7.2%	-8.1%	10.3%	9.8%	6.8%

\*Decline reflects funding transferred out due to refundings.

The City's capacity to issue additional bonds is governed by covenants to existing bondholders and is set forth in the bond resolutions. These covenants require the City to use more conservative assumptions when calculating debt service coverage for this purpose. The more conservative assumptions include: (1) the City must compare actual historical net revenues against future maximum annual debt service, (2) assume higher long-term interest rates for short-term variable rate obligations, (3) the impact that issuing the full \$400 million authorization of commercial paper may have on debt service even though the outstanding balance may be lower, and (4) minimum coverage of 1.25x for senior lien bonds and 1.1x coverage for combined senior and subordinate lien debt. These additional assumptions used for the purpose of issuing additional bonds reduce the amount of debt capacity available to the City to fund CWP projects. Since the additional bonds requirements use historical revenues, this implies that rate increases would need to be in place in advance of planned bond issuances.

The following tables (D-2 and D-3) provide an illustration of debt service coverage with and without the proposed rate adjustments for senior lien bonds and combined debt. Without the rate adjustments, the CWP is trending toward default of the minimum coverage for combined debt by 2014-15. A covenant breach obviously has financial and political implications and, at minimum, can result in downgrades and force a rate increase.

Description	Fiscal Year					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Rate Covenant Coverage						
Projected Actual Net Revenue	259,976	266,028	304,704	331,627	358,258	392,295
Projected Actual Debt Service						
Becoming Due in Each Fiscal Year						
Senior Lien Bonds	106,378	112,433	121,035	120,565	133,152	127,536
Total Debt	174,058	183,894	194,909	197,999	221,324	222,424
Projected Actual Net Revenue as a						
Percent of Debt Service						
Senior Lien Bonds	244%	237%	252%	275%	269%	308%
Total Debt	149%	145%	156%	167%	162%	176%

Description	Fiscal Year					
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Rate Covenant Coverage						
Projected Actual Net Revenue	259,976	253,096	247,567	241,687	228,206	218,390
Projected Actual Debt Service						
Becoming Due in Each Fiscal Year						
Senior Lien Bonds	106,378	112,433	121,998	121,528	141,152	152,719
Total Debt	174,058	183,894	196,792	201,282	229,713	245,524
Projected Actual Net Revenue as a						
Percent of Debt Service						
Senior Lien Bonds	244%	225%	203%	199%	162%	143%
Total Debt	149%	138%	126%	120%	99%	89%

Notes: Assumptions maintain proposed CIP and year-end capital cash balance.  
O&M cash balance drops below recommended level in 2014-15 and is negative in 2015-16.

## Budget Management to Offset Rate Burden

The Bureau and its City partners have proactively identified and implemented reductions for three years prior to requesting a rate increase. However, the factors driving the rate increase have overwhelmed efforts to absorb increasing costs, particularly in a weakened economy. Following are examples of some of the reduction and efficiency measures undertaken and .

- Reduced staffing:

BOS staffing has been reduced from a high point of 1,475 positions in the last three years, and from a peak of 1,764 positions in 1993-94. Fiscal Year 2010-11 staffing was 1,318 positions. The recently adopted 2011-12 budget eliminated an additional 83 positions from SCM (75 deletions and eight reassignments) in continued efforts to maintain service levels with the minimum necessary staff.

Currently, there are approximately 160 vacant funded positions in the Clean Water program within the Bureau of Sanitation. Approximately 60 of these positions are required to be held vacant to achieve the existing salary savings rate of four percent. Management flexibility is represented by the remaining 100 vacant funded positions combined with other personnel authority.

We understand the need for some management flexibility to deal effectively with unforeseen circumstances. However, this must be balanced with rate responsibility. Therefore, the deletion of a minimum of 25 vacant funded positions in non-critical functions is recommended to reduce operations costs for the CWP. These 25 positions represent a direct salary cost of \$2 million and an indirect cost of \$958,400 for a total cost of \$3 million. This funding would augment the capital program.

- Restructuring of Bond Debt:

Over the past 10 years, the City has restructured \$2.9 billion in bond debt, yielding \$416 million in debt service savings. In addition, the CWP incorporates both senior lien and subordinate debt and loans, as well as various other financial products, to more efficiently leverage its revenues and lower the cost of borrowing. The CWP also makes use of subsidized State loans. The Bureau and this Office continue to seek opportunities to achieve additional savings in the debt program.

- Operational Efficiencies:

Water reclamation and treatment plants have reduced operating expenses by more than \$27 million over the last two fiscal years. These include reduced biosolids hauling and processing costs at the Green Acres facility, and utility usage and optimized use of process chemicals at the treatment plants. Automation has also allowed for reduction and combination of station posts at the treatment plants, and for more efficient dispatching of crews for the collection system through the FAST system.

- Managed Hiring:

Given the revenue condition of the SCM, managed hiring has been instrumental in employing austerity measures to contain labor costs, particularly in the halting of promotions and non-essential hiring, and to assess reorganization opportunities. In the process of managed hiring, the City attempted to minimize the use of SCM funded positions for layoff avoidance from other City operations. Of 148 positions in the CWP filled through managed hiring over the past three years (transfers from within City work force to fill critical positions), 26 positions were filled for layoff avoidance.

## Strategic Opportunities to Manage Future Rate Increases

Although we recognize that there is a need to increase rates for the Wastewater System, we believe it is appropriate to point out that opportunities exist to strategically manage the potential impact of future rate increases on ratepayers. These opportunities include the opportunity to explore enhanced revenues or reduced costs over a longer term that may partially offset (separately or combined) the pressure of increased costs on rates. While we are recommending that the Council and Mayor approve an increase in rates, we are also recommending that the Council and Mayor instruct the appropriate staff to explore the following opportunities in an attempt to minimize the size of future rate increases.

### *Improve on the Use, Distribution and Strategic Economic Deployment of Recycled Water*

Recycled water must become a more significant portion of the City's water resources. The opportunity to manage it so that:

- The maximum amount of clean water is generated
- The City receives compensation or avoids costs, where appropriate, for the water provided
- The use of the water is strategically deployed to reduce the need to purchase expensive water from the Metropolitan Water District and reduce overall potable water rates. Purchased water is a pass-through to the Water Customer and any reduction in purchased water can directly impact the water bill. Use of recycled water for landscaping and industrial uses should be aggressively maximized.
- The maximum amount of stormwater is diverted into the sewer system – increasing strategic linkages between the sewer and stormdrain system. This may also help with flow as water conservation increases and reduce pollutants reaching receiving water bodies.

Currently, the Bureau reports that:

- It produces 28,835 million gallons/year of recycled water (88,491 acre feet)
- The percentage of water reclaimed from each of the four plants is as follows:
  - ✓ Hyperion – 15%; Terminal Island – 16%; LA/Glendale – 25%; Tillman – 81%
- The City produces more than three times the amount of recycled water than is currently being used.
- Recycled water produced from Hyperion is provided to West Basin Municipal Water District. West Basin pays the Los Angeles Department of Water and Power for the water and provides further treatment of the water.
- Recycled water produced at Terminal Island is provided to several local industrial business, reduces their water costs and potable water demand and is provided as a seawater intrusion barrier in the harbor.
- Recycled water from Tillman and LA Glendale is provided to the Los Angeles Department of Water and Power for use throughout the City and is provided to enhance flows into the Los Angeles River.
- All Sanitation Treatment plants use recycled water where possible.

- Currently, the demand for recycled water and the infrastructure to provide the water and significant limitations on the use of recycled water. Although, Department of Water and Power is making progress in this area.
- Significant improvement in this area must be coordinated with the Department of Water and Power.

*Explore opportunities to maximize revenue from Wastewater Properties*

- Recently, Sanitation began working on converting water rights associated with Green Acres Farm to revenue.
- Other opportunities may also exist to increase revenue from Wastewater properties. For example:
  - ✓ Exploring the beneficial use of the resulting solids to create energy for use at the plants;
  - ✓ Receiving compensation for mineral rights associated with Wastewater properties; and
  - ✓ Exploring opportunities to generate energy from solar, thermal and/or hydro technologies.
- Any revenues received from these types of efforts may be available to offset costs that would drive the need for future rate increases.

*Explore the creation of one Citywide Water Resources Agency*

- Identify opportunities to improve strategic management of water, achieve efficiencies by eliminating duplication and minimize the combined effect of sewer and water rates by combining the operations of the Bureau of Sanitation, Clean Water Program with the Department of Water and Power, Water System. One reason why Water Resource Management has not been optimized within the City is the maintenance of separate and distinct operations.
- Combining operations potentially could provide an opportunity to reduce the overall rate impact of maintaining two separate operations.
- Successful water management is vital to the sustainability of the City and the City should explore all possibilities to increasing effectiveness and controlling rates.
- The Department of Water and Power indicates that future water resources strategy for the next 25 years involves a significant increase of the use of recycled water and stormwater capture. In the year 2034-35, the DWP projects that the City water supply will be as follows:
  - ✓ 33 percent from the LA Aqueduct;
  - ✓ 24 percent from the Metropolitan Water District;
  - ✓ 16 percent from Local Groundwater;
  - ✓ 12 percent from the Public Works Clean Water Program (8 percent from Recycled Water and 4 percent from Stormwater capture);
  - ✓ 9 percent from water conservation; and,
  - ✓ 6 percent from water transfers.

- With the growing significance of the Public Works Clean Water Program on the City Water Resources strategy it is appropriate to consider maximizing the synergies of the two operations to achieve greater effectiveness in the management of water as a resource.

*Explore transitioning to monthly billing*

- Allow ratepayers more timely information about their resource consumption patterns and the resulting costs. This would also separate out the costs from the power system and trash collection to provide a more accurate picture of actual costs.
- This would allow the City to receive funds earlier and potentially reduce the amount of outstanding accounts receivable.
- Provide for more regular communication with ratepayers.
- Combining billing with the Water System to allow ratepayers to see the net effect of their consumption choices.

*Continue to evaluate the structure of sewer rates.*

- The Bureau reports that 88 percent of the sewer revenues are flow related. While flow is certainly a critical component of the wastewater system, providing for efficient and effective conveyance of solids to the point of treatment, the more critical component affecting the cost of treatment is the actual amount and type of solids entering the system.
- Our initial rough estimates of the potential for water conservation to impact those revenues are up to three percent based upon the Water Integrated Resource Plan and informal conversations with the Department of Water and Power. While this appears to be a relatively small financial impact, a more detailed review may be warranted to ensure that financial stability within the Wastewater System is maintained as the City aggressively pursues additional water conservation.
- To ensure that the rate structure reflects other important City policies – such as water conservation or the use of recycled water, improving odor control, improving system reliability and reduction of spills.

*Explore additional possibilities of vertically integrating the supply chain*

Vertical integration is a strategic business model that is warranted when greater control is desirable in the supply or distribution chain and can be a method of managing risk. The City has strategically achieved vertical integration in critical areas. For example, the Department of Water and Power has vertically integrated power generation operations by purchasing natural gas fields, the Department of Public Works, Bureau of Street Services has vertically integrated by establishing control over two asphalt plants and the Bureau of Sanitation has vertically integrated by purchasing Green Acres Farm for the distribution of biosolids.

The Bureau reports that chemicals for treatment of waste are a critical component of the operations and maintenance of the wastewater treatment system. The chemicals are:

- Ferrous chloride and ferric chloride for coagulation;
- Sodium hypochlorite for air pollution control units; and,
- Polymer to thicken solids during the centrifuge process.

The Bureau reports that there are a very limited number of vendors and only one local vendor which could increase price volatility for the vendor. In addition, with a small number of vendors, supply certainty is of concern as well. Given the important nature of these chemicals to proper treatment of wastewater, this is an appropriate area with which to explore the possibility of vertical integration. Establishment of greater control over the chemical supply process might benefit ratepayers by providing greater certainty over both supply and price.

	Actual							
	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
(a) Billed volume	166,841,302	164,133,426	164,276,094	164,581,801	162,201,111	157,052,253	152,349,527	147,186,507
(b) Non-LI Volume	161,270,607	158,795,317	159,330,163	159,753,442	157,206,816	151,409,739	145,111,861	139,079,601
(c) LI Volume	5,570,695	5,338,109	4,945,931	4,828,359	4,994,295	5,642,514	7,237,666	8,106,906
(d) LI Surcharge @0.84% [(b)*SSC*0.84]	\$3,156,388	\$3,321,363	\$3,546,689	\$3,824,497	\$4,027,639	\$4,158,923	\$3,985,933	\$3,820,238
(e) LI vol - full charge [(c)*SSC]	\$12,979,719	\$13,291,891	\$13,106,717	\$13,760,823	\$15,232,600	\$18,451,021	\$23,667,168	\$26,509,583
(f) LI - actual revenue	\$9,193,384	\$9,077,579	\$9,724,778	\$9,874,120	\$10,963,318	\$13,247,444	\$17,255,053	\$19,051,759
(g) LI Subsidy [(e)-(f)]	\$3,786,336	\$4,214,312	\$3,381,939	\$3,886,703	\$4,269,282	\$5,203,576	\$6,412,115	\$7,457,824
(h) Surcharge less Subsidy (d)-(g)	-\$629,947	-\$892,949	\$164,751	-\$62,205	-\$241,643	-\$1,044,654	-\$2,426,182	-\$3,637,585
(i) Required Surcharge [(g)/(b)*SSC]	1.01%	1.07%	0.80%	0.85%	0.89%	1.05%	1.35%	1.64%

Current Surcharge

0.84% added to rate for all non-low income customers (res + comm)

Current Subsidy

31% rate reduction on first 9 hcf/month (covers between 90-100% for most customers)

	Category	Project Title	CONS Sum
1	CS	ASSESSMENT ACT SWRS	\$4,700,000
2	CS	ATF ECIS - LA CNGA & JEFF UPG	\$39,000
3	CS	ATF NCOS SIPHON UPGRADE	\$117,000
4	CS	COS REHAB NORS DIV 4 TO MARKET	\$16,555,261
5	CS	EMERGENCY SEWER REPLACEMENT	\$180,788,000
6	CS	FIGUEROA MERIDIAN YORK RLF SWR	\$2,237,042
7	CS	MAINTENANCE HOLE RESETTING	\$8,173,200
8	CS	NOS REHAB MAZE PHASE 5	\$13,729,511
9	CS	SSRP A01 EMERSON AV & 82ND ST	\$1,101,500
10	CS	SSRP E11 HESBY ST. & RIVERTON	\$246,354
11	CS	SSRP H04A SNST PLZA & RSNG GLN	\$1,543,413
12	CS	SSRP H04B 3RD & LA CIENEGA	\$1,461,444
13	CS	SSRP H25A HOOVER & CLARISSA	\$733,628
14	CS	SSRP H25B MANZANITA & EFFIE	\$866,238
15	CS	SSRP H26A FRANKLIN & HYPERION	\$1,373,033
16	CS	SSRP H26B LOS FELIZ & RVERSIDE	\$1,321,671
17	CS	SSRP H26C SANBORN & GRIFF PARK	\$212,925
18	CS	SSRP H26D GRIF PARK & GLENDALE	\$459,005
19	CS	SSRP H35 GRIFFITH PK & FRANKLN	\$1,148,172
20	CS	SSRP N09 FRESNO ST & OREGON ST	\$1,097,425
21	CS	SSRP N13 CESAR CH & ALAMEDA	\$1,188,261
22	CS	SSRP N15 GLENDALE & SCOTT	\$2,326,265
23	CS	SSRP P10 AVE 43 & MARMION	\$1,171,152
24	CS	SSRP P11 MARMION & FIGUEROA	\$516,459
25	CS	SSRP P12 AV 50 & MONTE VISTA	\$1,029,954
26	CS	SSRP P13 RANGE & NORTH AV 55	\$1,045,461
27	CS	SSRP P14 PASADENA & MARMION	\$1,161,345
28	CS	SSRP P18A EAGLE ROCK & YORK	\$2,019,530
29	CS	SSRP P18B VERDUGO & AVE 33	\$1,892,533
30	CS	SSRP S03 RODEO & NORTON	\$1,229,623
31	CS	SSRP S15 GRAND AVE & 58TH ST	\$549,485
32	CS	SSRP T03 PASEO DL MR & CAROLNA	\$1,910,528
33	CS	SSRP U15 CAMDEN & EXPOSITION	\$260,254
34	CS	UPPER BEACHWOOD EAST MH ADD	\$877,789
35	CS	UPPER BEACHWOOD WEST MH ADD	\$823,623
36	CS	WASH OXFORD BEACH RLF SWR	\$4,379,895
37	DCT	DCT CAPITAL EQP REPLC PROG	\$2,377,150
38	DCT	DCT CAPITAL STR REPLC PROG	\$933,250
39	DCT	DCT ELECT VAULTS MH 1-3 REPL	\$325,080
40	DCT	DCT IN PLANT STORAGE	\$9,564,500
41	DCT	DCT LAB FACILITY	\$4,199,800
42	DCT	DCT SEC CLAR CRACK REHAB	\$95,000
43	HTP	HTP AUX BOILER NO.2 REPL	\$3,374,077
44	HTP	HTP B ST GALLERY WALL REHAB	\$281,000
45	HTP	HTP BALANCING MACHINE ENCL	\$81,365
46	HTP	HTP CAPITAL EQP REPLC PROG	\$38,716,093
47	HTP	HTP CAPITAL UTILITY REPLC PROG	\$3,200,000
48	HTP	HTP DIG GAS COMP FAC	\$17,534,200
49	HTP	HTP PRIM BATT C MOD	\$34,288,100
50	HTP	HTP PRIM SLUDGE CENTRIFUGE INS	\$11,150,103
51	HTP	HTP PRIM SLUDGE CENTRIFUGE PRO	\$8,022,986
52	LAG	LAG CAPITAL EQUIP REPL PROG	\$1,403,000
53	PP	PP 606 - VALVES REPL	\$356,400
54	SW	CONSTRUCTION SERVICES CONTRACT	\$40,000,000
55	SW	DOWNTOWN LA LOW FLOW DIVR SEP	\$881,412
56	SW	ENVIRONMENTAL LEARNING CENTER	\$8,099,313
57	SW	GARVANZA PARK BMP SEP	\$2,304,000
58	SW	GREEN ACRES CERP	\$355,000
59	SW	LABORATORY EQUIPMENT PROC	\$2,082,738
60	SW	N ATWATER CRK RESTORATION SEP	\$1,618,781
61	SW	SMURRF	\$4,851,445
62	SW	SOUTH LA WETLANDS PARK SEP	\$2,955,000
63	SW	WWW NETWORK SERVERS CERP	\$6,692,000
64	TIWRP	TIWRP CAPITAL EQP REPLC	\$4,350,000
65	TIWRP	TIWRP LPGH LID REPLACEMENT	\$710,325

	Category	Project Title	CONS Sum
1	CS	4TH AVE SLAUSON SWR REHAB	\$17,673,000
2	CS	74TH STREET SEWER REHAB	\$17,867,943
3	CS	AIR SCRUBBER UNIT IMPROVEMENTS	\$460,000
4	CS	ATF ECIS - MISSION & JESSE	\$14,975,000
5	CS	CIS RELIEF SWR	\$6,873,000
6	CS	COS 59TH ST AND FOURTH AVE	\$8,388,000
7	CS	CS WW CONTROL SYSTEM REPL	\$5,289,150
8	CS	ENTERPRISE ST SIPHON MOD	\$1,579,000
9	CS	LCIS REHAB BLACKWELDER MELROSE	\$60,309,000
10	CS	LCIS REHAB JEFFERSON LA CIEN	\$6,100,000
11	CS	NEIS PH 2	\$315,621,352
12	CS	NORMANDIE REPL LCL 68-VERMONT	\$9,600,000
13	CS	NORMANDIE SWR REPL/REHAB	\$14,607,000
14	CS	NOS REHAB PROGRAM	\$70,000,000
15	CS	NOS REHAB U-2 WESTERN TO VERMONT	\$13,375,000
16	CS	NOS REHAB U-5 SAN PEDRO HOOPER	\$10,920,000
17	CS	NOS REHAB U-6 HOOPER WILSON	\$16,300,000
18	CS	NOS REHAB U-7 WILSON LA RIVER	\$12,600,000
19	CS	ODOR CTRL ATWATER VILLAGE SWR	\$740,000
20	CS	SSRP A04 AIRPORT & 78TH ST	\$269,000
21	CS	SSRP C01A CALIF & ABBOTT KINN	\$2,655,000
22	CS	SSRP C01B BILLOWVISTA & 83RD	\$1,395,200
23	CS	SSRP C03 VENICE & STEWART	\$2,890,810
24	CS	SSRP C08A PALISADES & SURFVIEW	\$603,338
25	CS	SSRP C08B TEMESCAL & PALISADES	\$2,132,000
26	CS	SSRP C08C OCEAN & TEMESCAL	\$1,948,000
27	CS	SSRP E02 VENTURA & LANKERSHIM	\$1,604,915
28	CS	SSRP E35	\$545,000
29	CS	SSRP E39 BALBOA BL & VENTURA BL	\$3,052,000
30	CS	SSRP H03	\$8,060,000
31	CS	SSRP H14 WILSHIRE & ORANGE	\$901,924
32	CS	SSRP H15 JUNE & WILSHIRE	\$453,000
33	CS	SSRP H19 ARDEN BLVD & 3RD ST	\$860,000
34	CS	SSRP H20 2ND & EDGEMOND	\$3,182,518
35	CS	SSRP H21 OLYMPIC & OXFORD	\$455,698
36	CS	SSRP H23 VERMONT & OLYMPIC	\$1,644,000
37	CS	SSRP H24 SUNSET BL & RENO ST	\$1,487,000
38	CS	SSRP H31	\$2,407,000
39	CS	SSRP H33 KENMORE & FOUNTAIN	\$1,043,000
40	CS	SSRP N01 BUDLONG & LEIGHTON	\$206,000
41	CS	SSRP N02 SAN PEDRO & 31ST	\$821,940
42	CS	SSRP N05	\$2,442,000
43	CS	SSRP N12 PARK VIEW & BEVERLY	\$1,675,000
44	CS	SSRP P09 GRIFFIN AVE & AVE 43	\$767,000
45	CS	SSRP P15 LEWIS & SAYLIN	\$2,067,348
46	CS	SSRP P21A LOS FELIZ & REVERE	\$1,763,000
47	CS	SSRP P21B GLENDALE & ROWENA	\$1,555,000
48	CS	SSRP P21C LOS FELIZ & 5 FWY	\$3,152,000
49	CS	SSRP S05 10TH AV & 71 ST	\$1,722,000
50	CS	SSRP S06 VERMONT & 76TH ST	\$3,898,000
51	CS	SSRP S12 59TH ST & MAIN ST	\$389,000
52	CS	SSRP T01 3RD & MESA	\$2,186,000
53	CS	SSRP T04 S ALMA & W 10TH ST	\$1,837,000
54	CS	SSRP T05 CHANNEL & GAFFEY ST	\$933,000
55	CS	SSRP T06A ANAHEIM & BROAD	\$2,247,000
56	CS	SSRP T06B FRIES & PIER A	\$1,713,000
57	CS	SSRP U01 MARINA FWY & WCH PKWY	\$2,100,000
58	CS	SSRP U03 BENTLEY & CHARNOCK	\$217,000
59	CS	SSRP U09 OHIO AV & STONER AV	\$792,100
60	CS	SSRP U10 N BUNDY & TRAVIS ST	\$1,250,600
61	CS	SSRP U11 BUNDY & SAN VINCENTE	\$1,718,000
62	CS	SSRP U14 OVERLAND & 10 FWY	\$1,898,000
63	CS	SSRP U16 SELBY & LA GRANGE	\$684,000
64	CS	SSRP U20 BEV GLEN & QUITO LN	\$1,563,000
65	CS	SSRP U21 GAYLEY & LE CONTE	\$3,317,754
66	CS	SSRP U22A MULHOLLND & BELLAGIO	\$1,121,200

	Category	Project Title	CONS Sum
67	CS	SSRP U22B BELLAGIO & WILSHIRE	\$1,111,700
68	CS	SSRP U23 DAVID & CANFIELD	\$3,037,153
69	CS	SSRP W32 SERRANIA & DUMETZ	\$3,161,000
70	CS	SSRP Z13 MORAY & W 25TH	\$752,856
71	CS	UPPER BEACHWOOD EASEMNT MH ADD	\$997,000
72	CS	WASH GRIFFITH LB SWR REPLC	\$7,110,000
73	CS	WLAI5 REHAB OVERLAND TO KELTON	\$4,000,000
74	DCT	DCT ELECTRICAL POWER SYS MODS	\$5,900,000
75	DCT	DCT EMERGENCY BACKUP POWER	\$7,938,374
76	DCT	DCT ODOR CNTRL SYS EVAL TEST	\$750,000
77	DCT	DCT PERSONNEL & MULTI-USE FAC	\$12,500,000
78	HTP	HTP 1 & 5 MILE OUTFALL REBAL	\$9,713,000
79	HTP	HTP BOILER SYS EXPAN	\$10,630,291
80	HTP	HTP DICE II CENTRIFUGE REPL	\$17,800,000
81	HTP	HTP DIG GAS DESULF FAC IMPR	\$6,755,503
82	HTP	HTP DIG GAS FLARE REHB	\$1,886,593
83	HTP	HTP EPP HEADER REPL	\$10,000,000
84	HTP	HTP GRIT HANDL IMPROV	\$10,870,000
85	HTP	HTP ODOR CTRL HDWRKS SYS RPL	\$6,930,000
86	HTP	HTP PREG BUIL FIRST FL MODIF	\$2,186,000
87	HTP	HTP SCREENING HANDLING IMPR	\$4,960,000
88	HTP	HTP SERVICE WATER FAC UPG	\$4,500,000
89	HTP	HTP SOLIDS HNDL TRUCK LOAD FAC	\$70,000,000
90	HTP	HTP SUBSTATION SEPARATION	\$4,376,925
91	HTP	HTP TRK LDG FAC ODOR CTL MOD	\$7,200,000
92	HTP	HTP WW CONTROL SYSTEM REPL	\$35,664,733
93	LAG	LAG ELECTRICAL POWER SYS MODS	\$5,216,400
94	LAG	LAG NDN BLOW SYS ABB DCS PRO	\$1,149,801
95	LAG	LAG NDN BLOWER INSTALLATION	\$2,381,735
96	LAG	LAG NDN BLOWER PROCUREMENT	\$6,438,998
97	LAG	LAG TERTIARY FILTER REPL	\$4,237,218
98	PP	VENICE PP DISCHARGE MANIFOLD REPL	\$3,008,000
99	PP	VENICE PP DUAL FORCE MAIN	\$52,585,000
100	PP	VENICE PP VIBRATION REHAB	\$612,000
101	SW	BOND ASSISTANCE PROGRAM	\$5,000,000
102	SW	ELC EXHIBITS AND MEDIA	\$2,250,000
103	SW	EMD LIMS REPLACEMENT	\$2,090,502
104	SW	EMPAC SYSTEM REPLACEMENT	\$1,349,791
105	SW	TREATMENT PLANT PLANNED REPL	\$86,540,000
106	SW	TREATMENT PLANT PLANNED REPL	\$86,540,000
107	SW	TREATMENT PLANT PLANNED REPL	\$86,540,000
108	SW	WISARD MIGRATION PROJECT	\$972,000
109	SW	WW CONSULTANTS	\$142,362,000
110	SW	WW SYSTEM AUDITOR FINL CONSLT	\$4,085,000
111	TIWRP	TIWRP AWTF MF MEMBRANE REPL	\$2,235,928
112	TIWRP	TIWRP AWTF RO MEMBRANE REPL	\$1,835,639
113	TIWRP	TIWRP BLOWER CTRL SYS UPGRADE	\$600,000
114	TIWRP	TIWRP BLOWER REPLC	\$10,534,387
115	TIWRP	TIWRP CENTRIFUGE FEED PUMPS	\$112,350
116	TIWRP	TIWRP HEADWORKS IMPROVEMENTS	\$7,524,563
117	TIWRP	TIWRP HEADWORKS WALL REHAB	\$75,000
118	TIWRP	TIWRP TER FIL INF PUMP VFD RPL	\$1,067,850
119	TIWRP	TIWRP WW CONTROL SYSTEM REPL	\$11,211,121

Category	Project Title	CONS Sum	
1	CS	71ST AVALON SWR REHAB	\$7,100,000
2	CS	ADAMS BL RELIEF SEWER	\$15,316,000
3	CS	BALDWIN HILLS AREA SWR REHAB	\$5,156,000
4	CS	CONCORD STREET RELIEF SWR	\$2,579,365
4	CS	COS REHAB MARKET ST TO RODEO	\$53,240,000
5	CS	DAR 01 HOLLYWOOD	\$3,567,000
6	CS	EXPOSITION BL SWR REHAB	\$19,100,000
7	CS	FIGUEROA ST SWR REPLC	\$7,350,000
8	CS	FRONT ST SEWER REHAB	\$6,548,000
9	CS	HIGHLAND PK EAGLE ROCK SWR RHB	\$14,774,000
10	CS	HOLLYWOOD SEWER SAN MTCE YD	\$12,896,000
11	CS	HUMBOLDT FIGUEROA RLF SWR	\$34,108,000
12	CS	JWOOD NORMAN BERENDO RLF SWR	\$3,705,000
13	CS	MANHATTAN 4TH SWR REHAB	\$1,061,000
14	CS	N HOLLYWD SEWER SAN MTCE YD	\$10,605,000
15	CS	NOS REHAB U-1 VAN NESS WESTERN	\$9,500,000
16	CS	RESEDA SEWER SAN MTCE YD	\$13,545,000
17	CS	SAN PEDRO SIPHON UPSTREAM 30"	\$1,501,000
18	CS	SLAUSON COMPTON SWR REHAB	\$15,000,000
19	CS	SOTO PICO SWR REPLC	\$30,823,000
20	CS	VAN NUYS SYLMAR SWR REHAB	\$9,582,322
21	CS	VERMONT AV SWR REPLC	\$9,400,000
22	CS	VERMONT MANCHSTER SWR REHAB	\$5,600,000
23	CS	WESTERN 35TH RLF SWR	\$22,436,000
24	CS	WILSHIRE AREA OLYM SWR REHAB	\$8,846,000
25	CS	WILSHIRE AREA SYS SWR REHAB	\$8,989,000
26	CS	WILSHIRE WSTMORELAND SWR REHAB	\$1,909,000
27	CS	WLA SEWER SAN MTCE YD	\$13,561,000
22	DCT	DCT ELECTRICAL VAULT REHAB	\$463,208
23	DCT	DCT WW CONTROL SYSTEM REPL	\$14,824,612
24	HTP	HTP ABRA BLA & STEAM CLEAN FAC	\$997,524
25	HTP	HTP COMP ROOM CLNG SYS UPGRD	\$2,274,450
26	HTP	HTP DEWATER CENTRFG & PUMP 7&8	\$20,890,000
27	HTP	HTP DILUTE POLYMER PUMP IMPR	\$2,800,000
28	HTP	HTP IPS ODOR CNTRL IMPR	\$3,038,765
23	HTP	HTP SEC CLARF EXPANSION	\$25,000,000
24	LAG	LAG HPE & INST AIR PIPNG RPLC	\$2,971,855
25	LAG	LAG WW CONTROL SYSTEM REPL	\$3,703,579
26	SW	BUREAU-WIDE SECURITY SYSTEM	\$2,114,981
27	SW	SOUTH DISTRICT YARD IMPRV	\$11,692,000
28	SW	TREATMENT PLANT PLANNED REPL	\$86,540,000
29	TIWRP	TIWRP AWTF CHLORINE CT LINING	\$1,940,400
24	TIWRP	TIWRP BLENDER TANK RIM REHAB	\$459,287
25	TIWRP	TIWRP DIG GAS MOISTURE REM	\$1,965,844
26	TIWRP	TIWRP FIRE PROTECT SYS REPLC	\$1,155,000
27	TIWRP	TIWRP HPE DISINFECTION	\$636,694
28	TIWRP	TIWRP NEW SERVICE MAINT FAC	\$12,304,290
29	TIWRP	TIWRP POWER/ENERGY MGMT	\$408,410