CITY OF LOS ANGELES

BUREAU OF SANITATION

CLEAN WATER (WASTEWATER) PROGRAM

COUNCIL FILE 10-1947

STATUS REPORT

MARCH 2011

Form Gen. 160 (Rev. 6-80)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

DATE: March 24, 2011

TO: Honorable Eric Garcetti, President
Councilmember, 13th District

Honorable Jan Perry, President Pro Tempore
Chair, Energy and Environment Committee
Councilmember, 9th District

Honorable Bernard C. Parks, Chair
Budget and Finance Committee
Councilmember 8th District

The Honorable City Council
c/o City Clerk
Room 395, City Hall

FROM: Enrique C. Zaldivar, Director
Bureau of Sanitation

SUBJECT: **STATUS REPORT – CLEANWATER (WASTEWATER) PROGRAM CF 10-1947**

In response to council motion (Parks-Perry) 10-1947, the Bureau of Sanitation herewith transmits a report on the status of the City's Clean Water (Wastewater) Program (CWP), inclusive of a financial plan.

Following passage of the landmark Clean Water Act of 1972, which set the legislative and regulatory framework for the protection of the nation's water bodies and other natural resources, the City created the Sewer Construction and Maintenance (SCM) enterprise fund to finance the City's own Clean Water (Wastewater) Program, one the largest and most significant environmental protection programs in our City's recent history.

Through the capital investment of over $6.3 billion over the last 25 years, we as a City have upgraded our wastewater system infrastructure to be in compliance with the Clean Water Act, and in so doing also improved the quality of life of all of the City's residents and all of its communities. The Hyperion Treatment Plant, one of the largest plants in the country, has been upgraded to the full secondary treatment level, and has ceased ocean disposal of biosolids. Two of the City's water reclamation plants have been recently equipped with an extensive "nitrification-denitrification" process which brings the quality of the effluent water entering the LA River into full compliance with nitrogen "toxicity" limits. Upgrades and replacements to the City's aging network of over 6700 miles of sewer pipes have resulted in a reduction of sewer spills and overflows of 80% throughout many of the City's neighborhoods.

Admittedly many of the City's efforts and investments in its CWP have been made as a result of judicial orders brought about by legal action led by regulatory agencies such as the US Environmental Protection Agency (EPA), the State Water Resources Control Board and Regional Water Quality Control Board; and third party environmental steward organizations like Heal the Bay, Santa Monica BayKeeper, National Resources Defense Council, and others. We believe that as a result of the City's unwavering commitment to protect the environment, we have established a new relationship with the regulatory agencies and the environmental advocacy organizations, one based on collaboration and the pursuit of a common goal to protect the environment and our communities, as we all know that much remains to be done and maintained.

As important and critical an infrastructure asset that the CWP is to the City and its residents, the expectations of Mayor Villaraigosa and your City Council that we mitigate and reduce costs through efficiencies and other means have been very clear. We have eliminated close to 200 positions over the last two years; working in conjunction with the CAO and the CLA, we have saved over $416 million in debt burden by aggressively restructuring the program bond debt; we have mitigated the potential cost of compliance with legal requirements in our Collection System Settlement Agreement by over $70 million by presenting a strong alternative technical approach in our air treatment program; as well several other efficiency efforts detailed in the report.

It was our goal to draft the report as instructed in your Motion, in a concise format that fully encapsulates the information relative to the "state" of the City's Clean Water (Wastewater) Program, inclusive of a financial plan where we present a rate adjustment proposal. We look forward to your consideration of the report.

ECZ:cp

ECZ350.cp

c: Honorable Antonio R. Villaraigosa, Mayor
Jeff Carr, Mayor's Chief of Staff
Romel Pascual, Deputy Mayor, Environment
Board of Public Works Commissioners
Miguel Santana, CAO
Gerry Miller, CLA
BOS Executive Team

BUREAU OF SANITATION
CLEAN WATER PROGRAM
STATUS REPORT

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Executive Summary

The City of Los Angeles (City) Bureau of Sanitation (BOS) is responsible for the collection, treatment and reclamation of wastewater generated by residential, commercial and industrial users in the City of Los Angeles and certain surrounding communities. BOS manages the City's Clean Water Program (CWP), which is responsible for operating and maintaining one of the world's largest wastewater collection and treatment systems. The system includes 6,700 miles of sewers, 44 pumping plants, three water reclamation plants, and one secondary wastewater treatment plant.

This report responds to the December 17, 2010 City Council Motion (CF#10-1947) that directed the BOS to prepare a comprehensive report on the state of the City's Clean Water Program, including a financial plan. The report is organized as follows:

- Section I: Introduction – Introduction to the CWP, report purpose, and report organization
- Section II: Background –The background section of this report provides a brief history of the CWP program, sources of revenue, triggers for historical rate adjustments, and improvements made with revenues received from rate adjustments.
- Section III: Current Financial Status – This section provides a discussion of the current financial status of the CWP, efficiencies made to optimize use of revenue, and comparison of the City's sewer charges to those of local and national wastewater service providers.
- Section IV: Future Needs and Drivers – The future needs section discusses the existing financial and legal obligations of the City, the service expectations that must be met by the CWP, and the risks associated with failure to adequately finance these needs.
- Section V: Required Revenues and Proposed Rate Adjustments – This section summarizes the future revenue requirements, provides rate adjustment alternatives, and presents a recommendation for proposed rate adjustments.

The Sewer Construction and Maintenance (SCM) Fund is an umbrella term used to describe a collection of funds related to the CWP. The SCM Fund is an enterprise fund and receives no support from the City's General Fund. The SCM Fund pays for all City expenses associated with the program through direct appropriations and the payment of related costs. Attachment A contains Schedule 14, the budget summary for the CWP.

The majority of the revenues to the SCM Fund are from user fees paid by customers who receive wastewater collection and treatment services. Although the CWP received significant federal funding for upgrades in the 1990s, outside funding sources have been extremely limited in the last several years.

The bond covenants associated with the debt issued by the CWP establish a flow of funds for most revenues deposited into the SCM Fund. Revenues must be used to pay for:

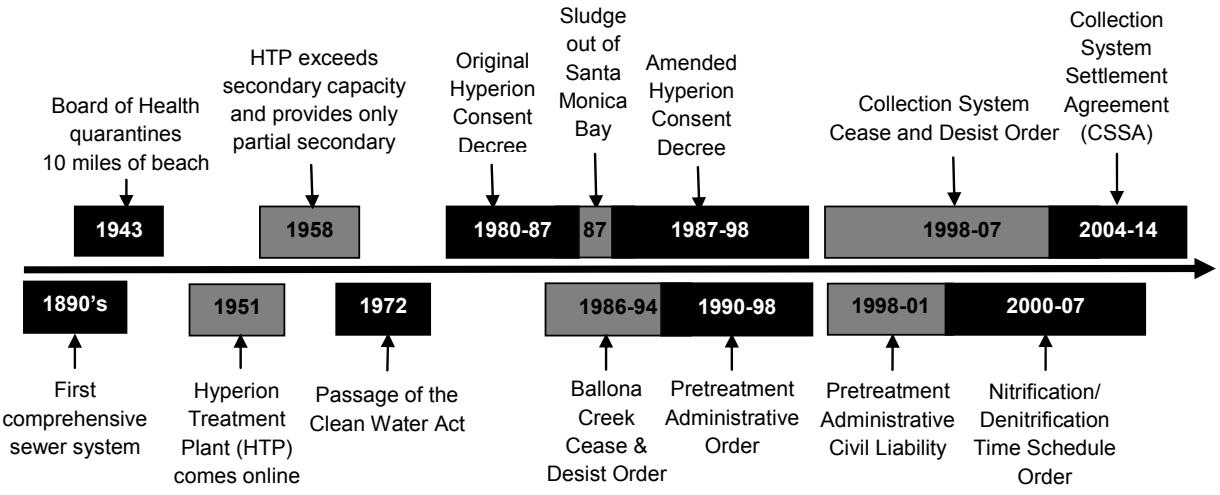
1. operations and maintenance (O&M) costs, then

2. debt service, then
3. capital costs

Capital costs have the last call on funds, so when revenues are not sufficient to completely cash finance the capital improvements, debt financing is used.

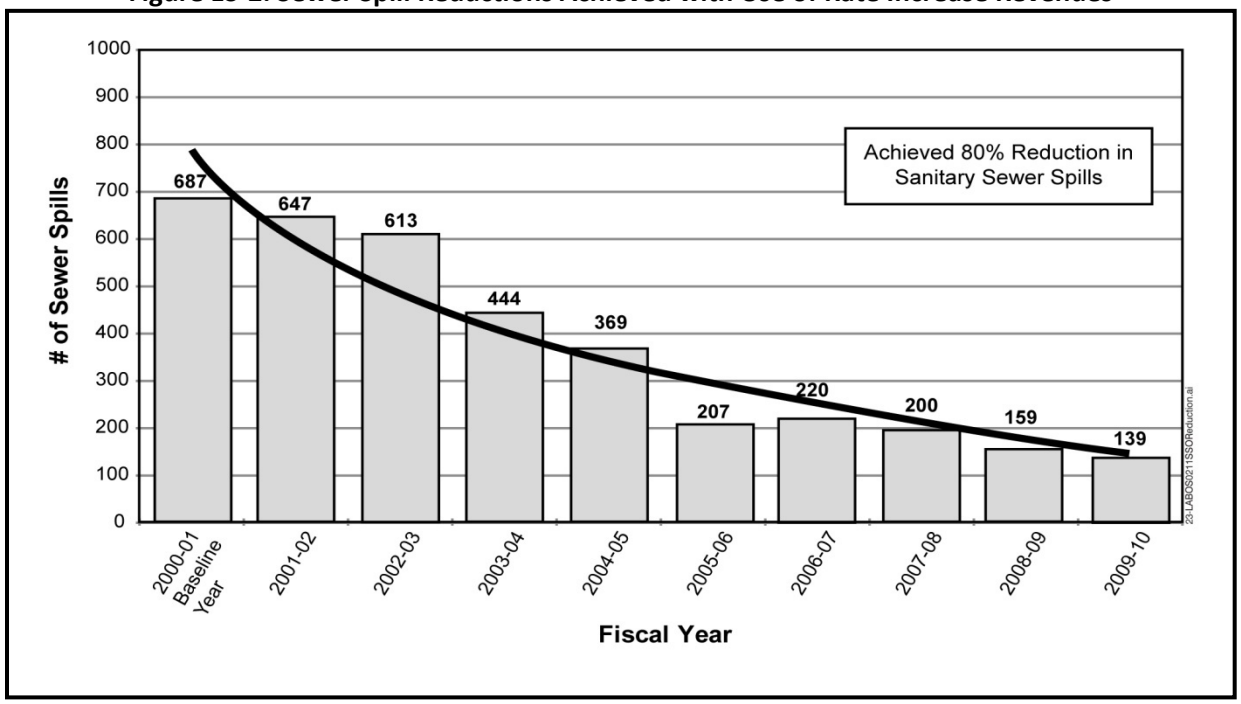
For the past 30 years, the primary drivers for the CWP have been regulatory requirements and enforcement actions, as shown in Figure ES-1. The current outstanding legal obligation of the CWP is compliance with the Collection System Settlement Agreement (CSSA). The CSSA resulted from sewer spills that occurred during the heavy rains in the late 1990s. The sewer spills resulted in a $550 million lawsuit against the City that was settled in 2004. 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 spills.

Figure ES-1: History of Regulatory and Litigation CWP Drivers



The City has successfully completed the first six years of the CSSA. As shown in Figure ES-2, sewer spills have been reduced by 80 percent, with spills caused by fats, oils, and grease reduced by 91 percent. The programs that enabled these dramatic results required a series of rate adjustments from 2005-2008 that increased the typical monthly residential Sewer Service Charge from $22.87 to $29.88. At the time these adjustments were adopted, it was expected that a similar series of adjustments would be required for the last five years of the CSSA. However, BOS decided not to request rate adjustments to be implemented starting in July 2009 to reduce the impact to ratepayers in a deteriorated economic climate. Instead, BOS deferred capital improvement program (CIP) projects and implemented additional operational efficiencies to reduce expenditures in order to avoid rate adjustments in calendar years 2009, 2010, and 2011.

Figure ES-2: Sewer Spill Reductions Achieved with Use of Rate Increase Revenues



While these strategies have successfully allowed the funding gap to be closed for a few years, it is not a sustainable strategy. The CWP's greatest asset is its infrastructure, with an estimated replacement value of approximately $20 billion. Since this infrastructure is the basis for providing safe and efficient sanitation services to the City of Los Angeles, its preservation is critical. If sufficient investment is not made in the infrastructure, it will be subject to emergency failures that can have a disastrous impact on human health and safety and the environment. Furthermore, the financial impact of emergency failures would be many times greater than the cost of operating, maintaining, and renewing the infrastructure in a responsible manner.

Due to the large dollar value of these capital investments and the long life of the assets, the CWP will continue to use debt financing to share the costs between current and future customers. Access to the bond markets at favorable rates requires that the program maintain a strong financial position. The CWP currently has worse financial metrics in several key rating areas than other AA rated agencies. If these are not improved, borrowing costs for the CWP will increase or market access could be restricted.

This report contains a range of recommendations to adjust fees in all categories, ensuring that customers are all paying their fair share for their use of the wastewater system. In most cases, the recommendations are for adjustments to be made on a multi-year basis, both to ease the initial impact to the customers and to provide a clear plan for the future they can use for their own budgeting purposes. The report also clearly describes the service expectations to be funded from these revenues, with recommendations for adoption of certain financial policies that will help maintain the financial health of the CWP. Lastly, there is a description of developing issues that are not included in the current financial projections, but which may impact the CWP in the future.

Table 1 provides a summary of the Recommended Fee Adjustments. It is recommended that the initial adjustments become effective on January 1, 2012, with annual adjustments occurring every July 1 thereafter.

Table 1: Recommended Fee Adjustments

User Fee	Recommendations
Sewer Service Charge (SSC)	Adjust fees on an annual basis for ten years.
	Implement a 0.5% increment for five years to fund a revolving fund loan program for rehabilitation of sewer laterals and abandonment of septic tanks.
	Allow adjustment of the default percentage discharge for commercial customers based on water conservation measures.
	Increase the low income surcharge to fully fund the low income subsidy program.
	Adjust the billings for certain governmental agencies to include the capital component of the SSC so they are billed on the same basis as all other customers.
Quality Surcharge Fees (QSF)	Adjust fees on an annual basis for ten years.
Industrial Waste Fees	Modify fees on an annual basis for ten years.
Septage Fees	Modify fees for full cost recovery this year, with annual adjustments thereafter.
Sewerage Facilities Charge	Update fees based on the current value of the system assets.

In addition to these fee adjustments, the report also contains recommendations for pursuing other revenue sources to help minimize future rate adjustments.

Sewer fees such as the SSC and the QSF are subject to the notification requirements of Proposition 218, but not the requirement for voter approval. The notification is followed by a public hearing at least 45 days later. If more than half of the customers protest the rate adjustments, they cannot be enacted. After the public hearing, the adjustments can be made by adopting ordinances modifying the appropriate sections of the Los Angeles Municipal Code (LAMC).

The Industrial Waste Fees, Septage Fees, and Sewerage Facilities Charges are not considered property-related fees so are not subject to Proposition 218. These adjustments can be made by adopting ordinances modifying the appropriate sections of the LAMC.

I. Introduction

The City of Los Angeles (City) Bureau of Sanitation (BOS) is responsible for the collection, treatment and reclamation of wastewater generated by residential, commercial and industrial users in the City of Los Angeles and certain surrounding communities. BOS manages the City's Clean Water Program (CWP), which is responsible for operating and maintaining one of the world's largest wastewater collection and treatment systems.

This report responds to the December 17, 2010 City Council Motion (CF#10-1947) that directed the BOS to prepare a comprehensive report on the state of the City's Clean Water Program, including a financial plan. The report is organized as follows:

- Section I: Introduction – Introduction to the CWP, report purpose, and report organization
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- Section III: Current Financial Status – This section provides a discussion of the current financial status of the CWP, efficiencies made to optimize use of revenue, and comparison of the City's sewer charges to those of local and national wastewater service providers.
- Section IV: Future Needs – The future needs section discusses the existing financial and legal obligations of the City, the service expectations that must be met by the BOS, and the risks associated with failure to adequately finance these needs.
- Section V: Required Revenues and Proposed Rate Adjustments – This section summarizes the future revenue requirements, provides rate adjustment alternatives, and presents a recommendation for proposed rate adjustments.

II. Clean Water Program Background and Rate History

The CWP provides wastewater collection, treatment, reuse and disposal services for the City of Los Angeles and 29 nearby cities and agencies. The system includes 6,700 miles of sewers, 44 pumping plants, three water reclamation plants, and one secondary wastewater treatment plant.

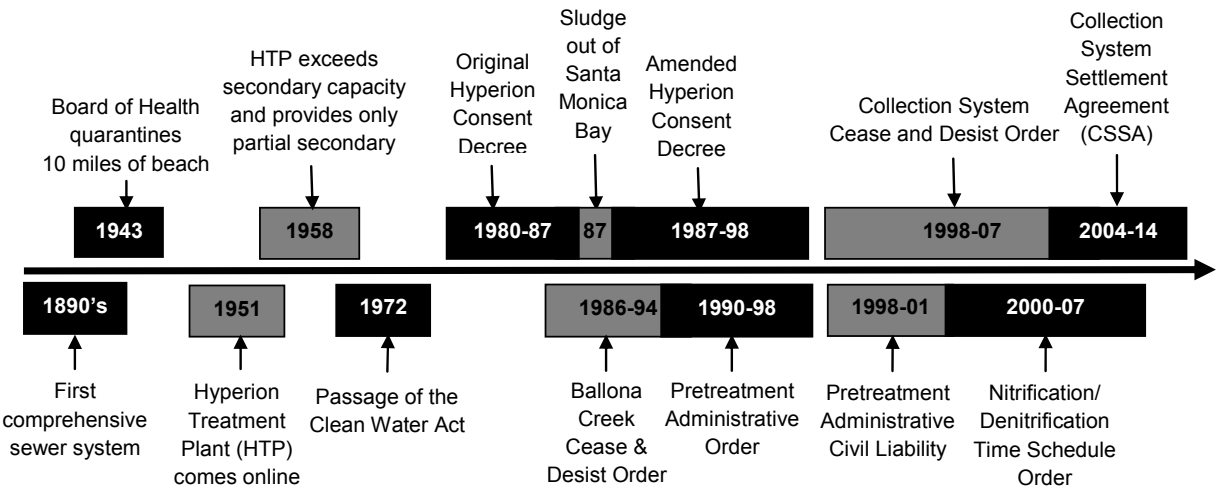
The sewers and treatment systems are continually upgraded to ensure that the health of the public and our environment are protected. In the past, periods of inadequate maintenance of these facilities have resulted in system failures and legal mandates that required significant investment.

The Common Council (predecessor to today's City Council) appointed the first sewer committee in 1869, but the first comprehensive sewer system was not implemented until the 1890s. Prior to the 1950s, treatment only consisted of screening the sewage before it was discharged into the Santa Monica Bay. In 1943, the California State Board of Health quarantined ten miles of beaches between Venice Beach and Hermosa Beach. The quarantine lasted eight years, until the modern Hyperion Treatment Plant

(HTP) went online in 1950. By 1951 HTP was able to provide full secondary (biological) treatment to incoming sewage, but increased flows reduced the treatment level back to primary, with only partial secondary treatment in 1958. Meanwhile, sewer overflows occurred on a regular basis in many parts of the City.

The CWP has many drivers, but the major ones for the last 30 years have been litigation and enforcement actions by regulatory agencies, as shown in Figure 1.

Figure 1: History of Regulatory and Litigation CWP Drivers



Following the passage of the Clean Water Act in 1972, the City implemented a Sewer Service Charge (SSC). The SSC was initially implemented for commercial customers and extended to residential customers in 1974. Prior to this time, much of the expense associated with the CWP was funded from the City's General Fund. The General Fund continued to support the CWP until 1987, when the Sewer Construction and Maintenance (SCM) Fund became an enterprise fund. Since that time, the CWP has been entirely self-supporting.

The SCM Fund is an umbrella term used to describe all funds that are used to receive the revenues described below. The bond covenants associated with the debt issued by the CWP establish a flow of funds for most revenues deposited into the SCM Fund. Revenues must be used to pay for:

1) operations and maintenance (O&M) costs, then
2) debt service, then
3) capital costs

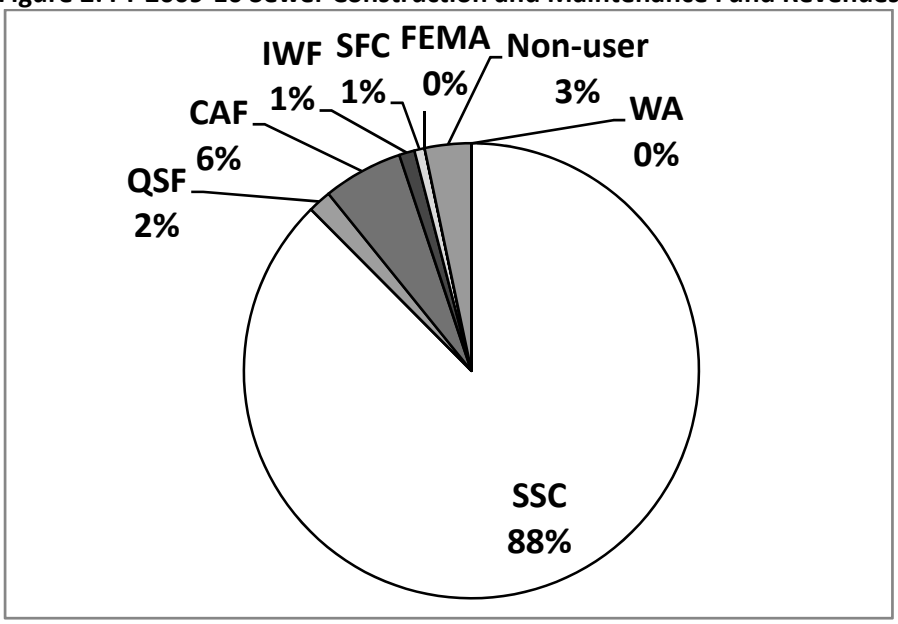
It is not required that revenues in a given year be sufficient to fund all capital costs if debt financing is available. The major revenues deposited into the SCM Fund are summarized below in Table 2. A detailed description of the sources of SCM Fund revenues is provided in Attachment B.

Table 2: Sewer Construction and Maintenance Fund Sources of Revenue

Revenue Source	Description
Sewer Service Charge (SSC)	The SSCs recover the cost of operation, maintenance, and replacement (OM&R) from users of the system based on their proportionate contribution of wastewater flow and strength to the system. The City's residential and commercial users pay the SSC through their Los Angeles Department of Water and Power (LADWP) bill. The amount varies according to volume, based on "domestic strength" flow. The typical monthly single family residential bill is $29.88. In FY 2009-10, the SSCs generated $478 million in revenue.
Quality Surcharge Fees (QSF)	The QSFs recover costs associated with conveyance and treatment of sewage with higher strengths than the "domestic strength" costs recovered through the SSC. Users who discharge stronger sewage are subject to a Biochemical Oxygen Demand (BOD) and Suspended Solids (SS) surcharge. In FY 2009-10, the QSFs generated $9 million in revenue.
Contract Agency Fees (CAF)	Los Angeles provides wastewater service to 29 nearby cities and agencies. The agencies are charged for each year's service based on the actual costs of providing the service. The charges include costs associated with new capital and O&M. In FY 2009-10, the contract agency fees generated $31 million in revenue.
Industrial Waste Fees for Service (IWF)	While the QSF described above recovers the cost of providing treatment of high-strength wastewater, it does not recover the costs of administering the industrial waste pretreatment program. The IWFs recover the costs of the pretreatment program. BOS also administers Septage Receiving Stations, which have associated fees. In FY 2009-10, the combined industrial waste fees generated $6 million in revenue.
Sewerage Facilities Charges (SFC)	The SFC is designed to recover the cost of wastewater system capacity required by new sewer connections and increases in capacity by current system users. In FY 2009-10, the SFCs generated $4 million in revenue.
Non-user revenues	The CWP also receives revenues from investments, crop sales from Green Acres Farm, salvage of equipment, and other miscellaneous sources. In FY 2009-10, these sources comprised $18 million of the revenue.
FEMA/CalEMA Reimbursement	The CWP can recover eligible costs associated with disasters from the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA). The CWP still has a significant amount of funding ($45.3 million) outstanding from work resulting from the Northridge Earthquake. In FY 2009-10, less than $6,000 in reimbursement were received.
Water Assets	The CWP has groundwater assets associated with its ownership of the Green Acres Farm in Kern County. While no water sales have occurred to date, BOS is exploring future sales as a source of revenue.

The contribution from each revenue source is presented in Figure 2 below. SSCs contribute the majority of the $546 million of SCM Fund revenue.

Figure 2: FY 2009-10 Sewer Construction and Maintenance Fund Revenues



As previously noted, many of the historical CWP programs were triggered by legal mandates. These legal mandates often required adjustment of the SSCs to provide sufficient revenue to meet legal obligations. The history of the SSC rate increases is summarized in Figure 3. A series of rate increases was triggered in FY 1986-87 by the amendment to the Hyperion Treatment Plant (HTP) consent decree which required the City to provide full secondary-level treatment for wastewater. There were no additional increases for a period of 11 years, until a 3 percent increase was implemented in October 2003. A key factor in maintaining a stable and low SSC in the 11 year period with no rate increases was the receipt of approximately $1.6 billion in Clean Water Act federal grants. However, these funds were dedicated to the HTP upgrade and could not be used for the maintenance and renewal of the remaining infrastructure, so a significant amount of debt financing was also required. The lack of regular rate increases that would have allowed the CWP to keep up with inflation left the City in a highly-leveraged, weakened financial condition. Figure 4 demonstrates the decline in the "buying power" of the revenues BOS has derived from rates when adjusted for inflation, based on the Consumer Price Index (CPI), from calendar year 1993. The SSC rate bought 4 percent less in 2010 than it did in 1993.

Figure 3: History of Sewer Service Charge (SSC) Rate Increases

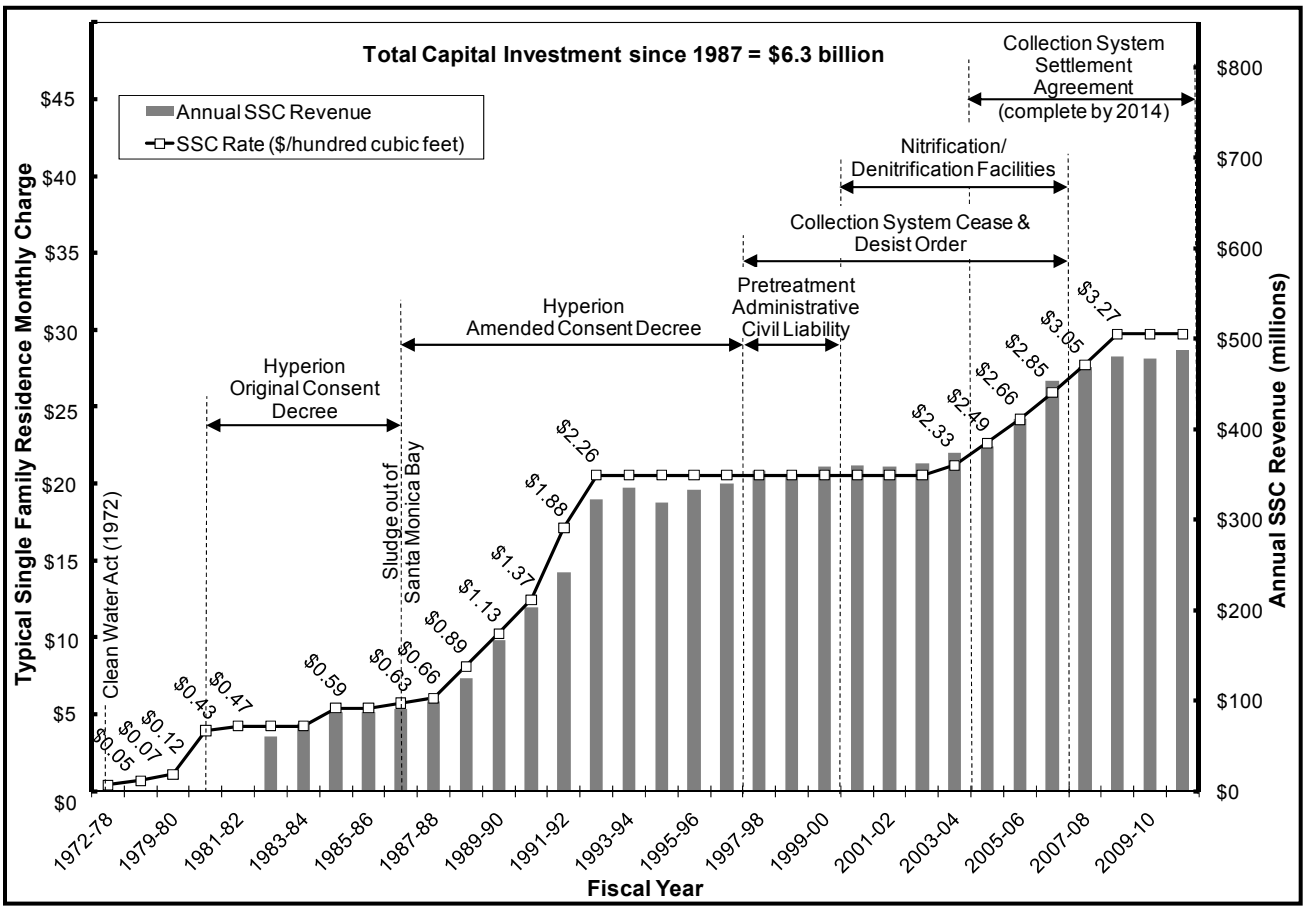
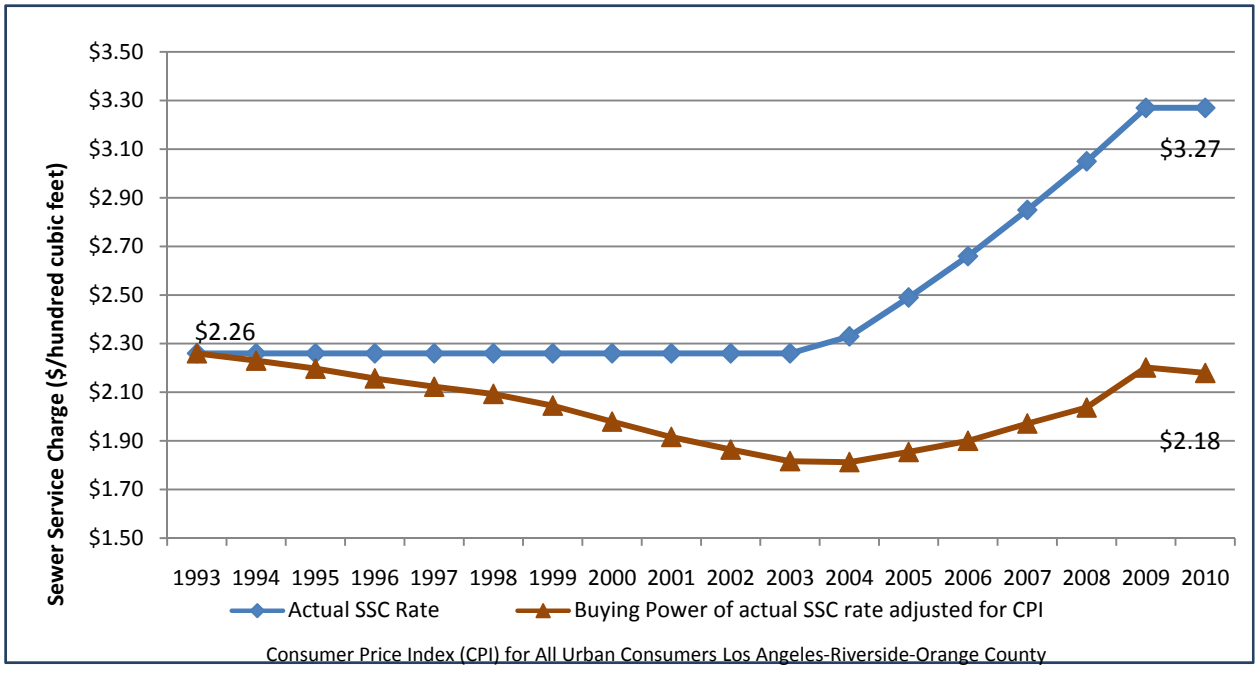
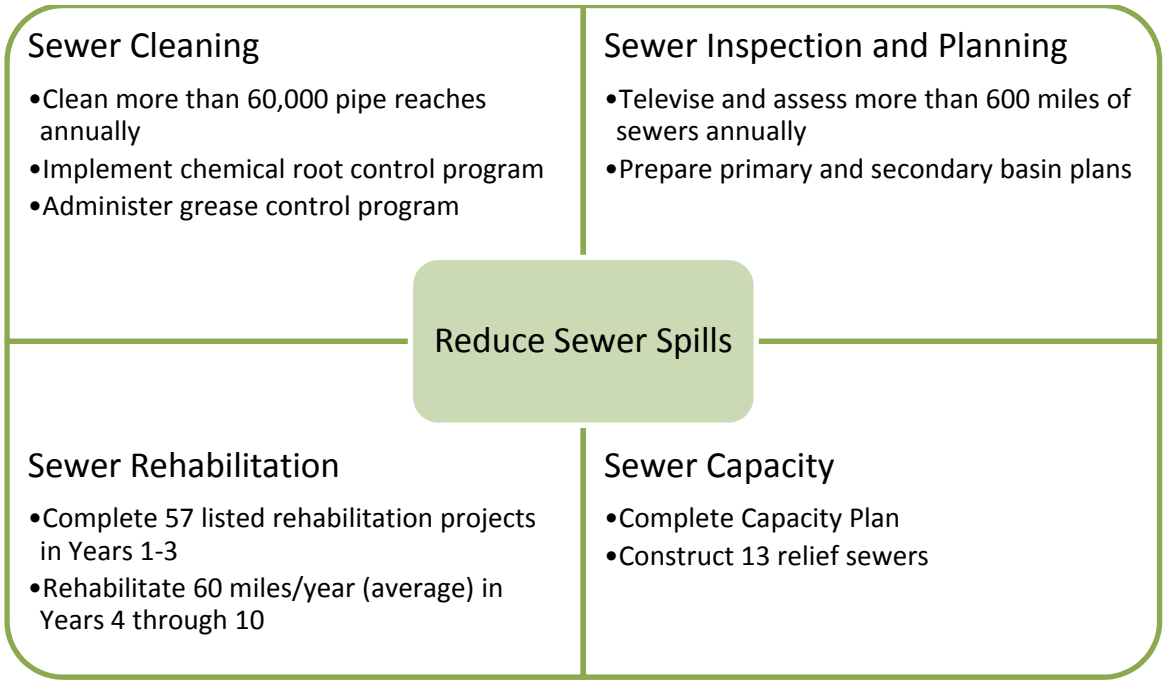


Figure 4: Sewer Service Charge Rates Compared to Consumer Price Index



As presented in Figure 3, the current outstanding legal obligation of the CWP is compliance with the Collection System Settlement Agreement (CSSA). The CSSA resulted from sewer spills that occurred during the heavy rains in the late 1990s. The sewer spills negatively affected local businesses and residents, created water quality impacts, and ultimately resulted in a $550 million lawsuit against the City that was settled in 2004. 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 spills. Figure 5 summarizes the requirements of the CSSA.

Figure 5: CSSA Requirements to Reduce Sewer Spills



In addition to reducing sewer spills, the CSSA also has requirements for odor control measures, construction of air treatment facilities, and construction of Supplemental Environmental Projects (SEPs) in lieu of paying fines.

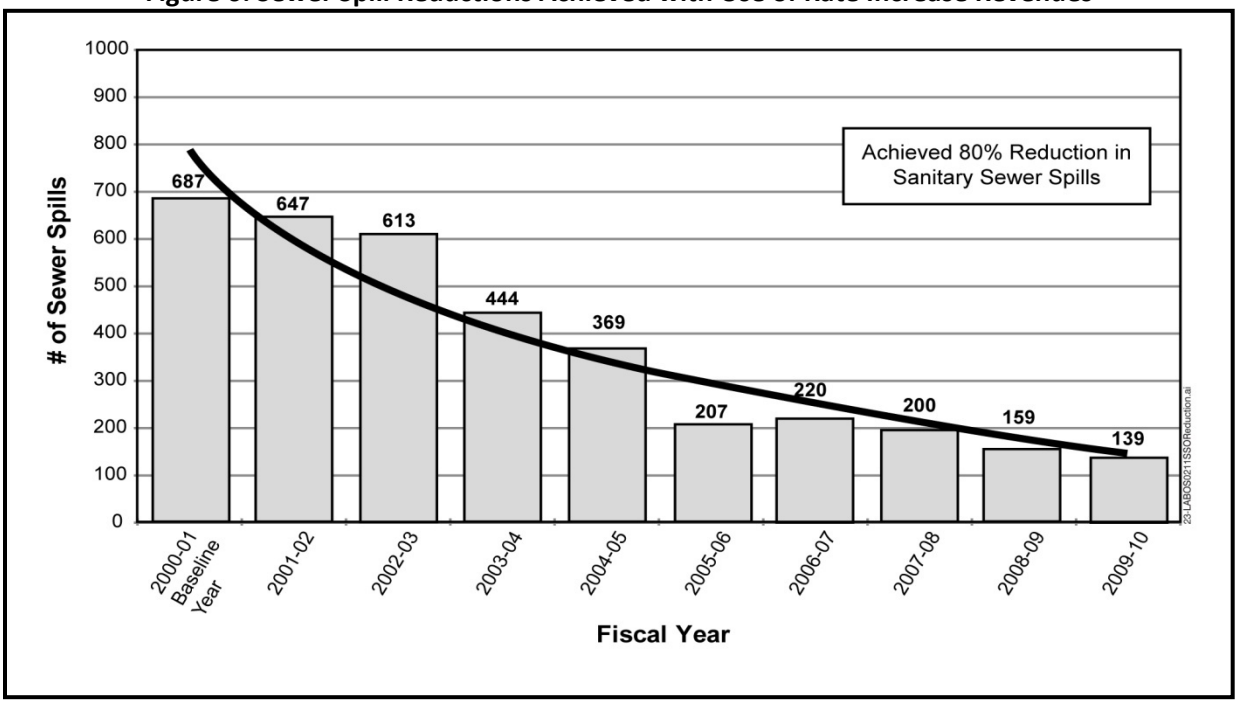
After negotiation of the settlement agreement, it was apparent that a series of rate adjustments would be required to support the CSSA. The City implemented five 7 percent rate adjustments between 2005 and 2008 to fund the first half of the CSSA program. At the time, it was expected that a second series of rate adjustments would be required to fund the last five years of the CSSA. However when this second round of adjustments was due, BOS decided not to request rate adjustments to be implemented in July 2009 to reduce the impact on rate payers in a deteriorated economic climate. Instead, BOS deferred capital improvement program (CIP) projects and implemented additional operational efficiencies, as described later in this report, to reduce expenditures in order to avoid rate adjustments in calendar years 2009, 2010, and 2011.

The funding obtained from the series of rate adjustments approved in 2005 has been used to achieve the following improvements in the collection system:

- Annual closed circuit television (CCTV) inspection and condition assessment of more than 600 miles of sewer
- Annual cleaning of more than 2,600 miles of sewer
- Annual inspection of 95 percent of permitted food service establishments for compliance with the Fats, Oils, and Grease (FOG) Control Program
- Building 55 sewer rehabilitation and replacement projects during the first three years of the Agreement and an additional average of 60 miles per year of sewer renewal beginning with Year Four.
- Building 11 sewer relief projects, beginning design and construction of two more, and identifying future relief projects in a Capacity Plan by June 30, 2006.
- Building two air (odor) treatment facilities and designing a third.
- Designing and beginning construction of five SEPs.

These efforts resulted in significant sewer spill reductions of 80 percent over a ten-year period. In FY 2009-10 there were a total of 139 sewer spills compared to 687 sewer spills in the baseline FY 2000-01. This equates to approximately 2.1 sewer spills per 100 miles of sewer, an all-time low for the City and significantly below the national average of 3.0 sewer spills per 100 miles of sewer pipe in the collection system. Root-related sewer spills have been reduced by 76 percent since FY 2002-03 when the City started its chemical root control program. Sewer spills caused by fats, oils, and grease (FOG) have been reduced by 91 percent since FY 2000-01 when the City began implementing its FOG control program. Figure 6 presents the improvements achieved with use of revenues from the 2005-08 rate increases.

Figure 6: Sewer Spill Reductions Achieved with Use of Rate Increase Revenues



In 2008, the City Controller's Office initiated a performance audit of the wastewater collection system. This audit included the first four years of the CSSA and provided a review of how the 2005 rate adjustments were being used. The summary of audit findings, issued January 14, 2009, is included in Attachment C. Some of the key findings of this report are listed below:

- BOS has adequately planned for its infrastructure needs.
- BOS has been extremely effective at reducing sanitary sewer overflows.
- BOS delivers a high level of service in the maintenance, inspection, and repair of the sanitary sewer system.

While the report in general was positive, the audit did identify some areas for improvement. A response from BOS dated April 14, 2009, detailed an implementation schedule for the recommendations, many of which had already been implemented. The only recommendation still outstanding is the replacement of the computerized maintenance management system, originally scheduled for completion by July 1, 2010. This project was delayed until 2016 due to funding shortfalls. This delay will not create any additional risks to the CWP since the existing system will continue to receive support from the vendor.

While this midterm review confirmed that the CWP is delivering what was pledged at the time the CSSA was initiated and rate adjustments approved, there are still many remaining activities to successfully complete the CSSA. These are described in further detail in the "Future Needs and Drivers" section of this report.

In summary, user fees, especially the SSC, provide the majority of the funding required for operations and maintenance costs, debt service payments, and some of the capital investment for wastewater collection and treatment in accordance with the federal, state, and local regulations. When the City fell behind on meeting those requirements, lawsuits and consent decrees forced the investments and resulted in forced alignment of the City with the standard industry practices. While federal grants greatly helped the rate payers in bearing the cost of the necessary expenses in the 1990s, it is generally accepted that under the current economic context, similar federal subsidies are unlikely in the near future. Therefore, rate adjustments are necessary for the CWP to continue to meet the outstanding CSSA obligations and resume the level of infrastructure investment necessary to protect the City from future enforcement actions.

III. Current Financial Status

This section summarizes the current financial obligations of the CWP, projections of revenue trends, the efficiencies that have been achieved to meet the financial constraints, and presents a comparison of current CWP sewer service charges to those of local and national wastewater service providers and an analysis of the current financial status of the CWP.

The CWP financial obligations are comprised of three primary categories, shown with their FY 2010-11 budgets:

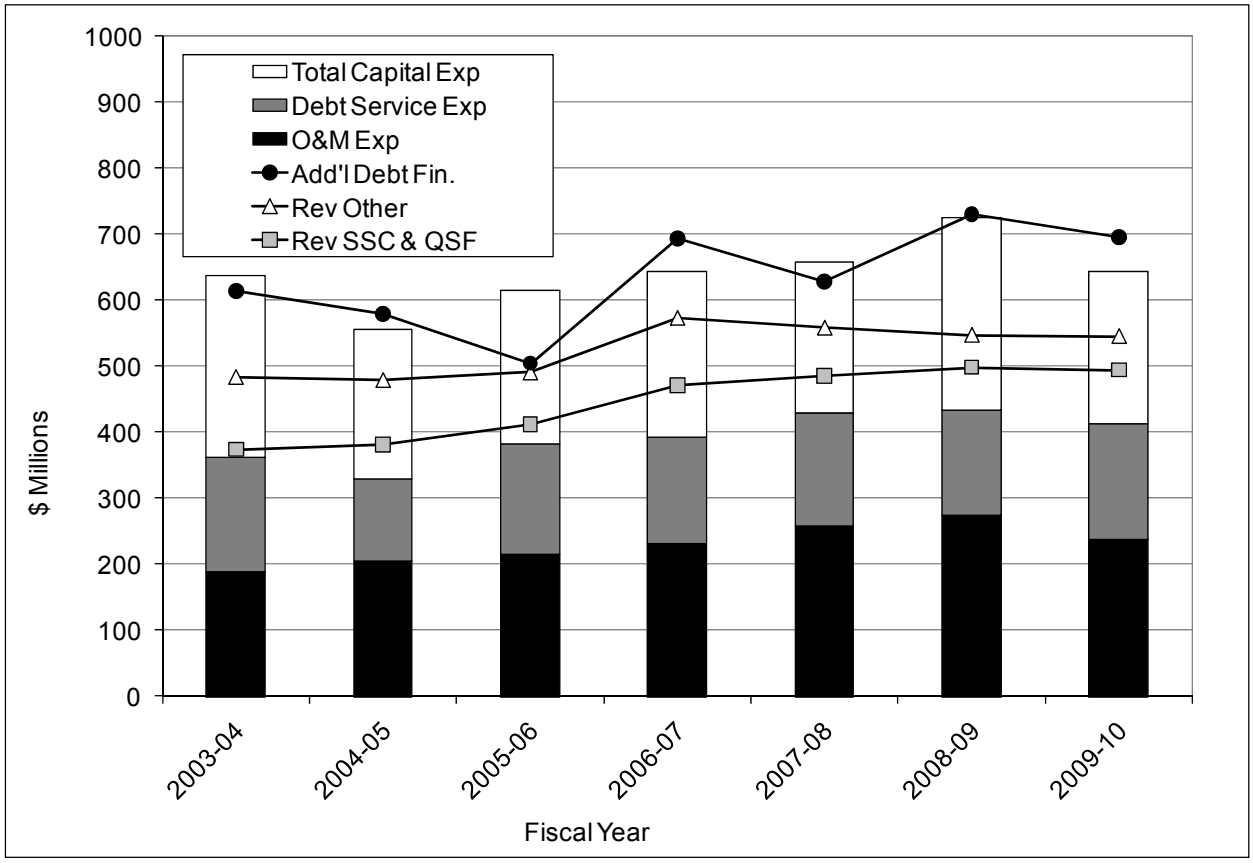
1. Operations and maintenance (O&M) - $312 million

2. Debt service - $179 million

3. Capital expenditures - $231 million

The expense obligations total approximately $722 million this year. Historical annual expenditures for each cost category are presented in Figure 7, along with the annual revenues.

Figure 7: Historical Expenditures and Revenues



A. Revenues

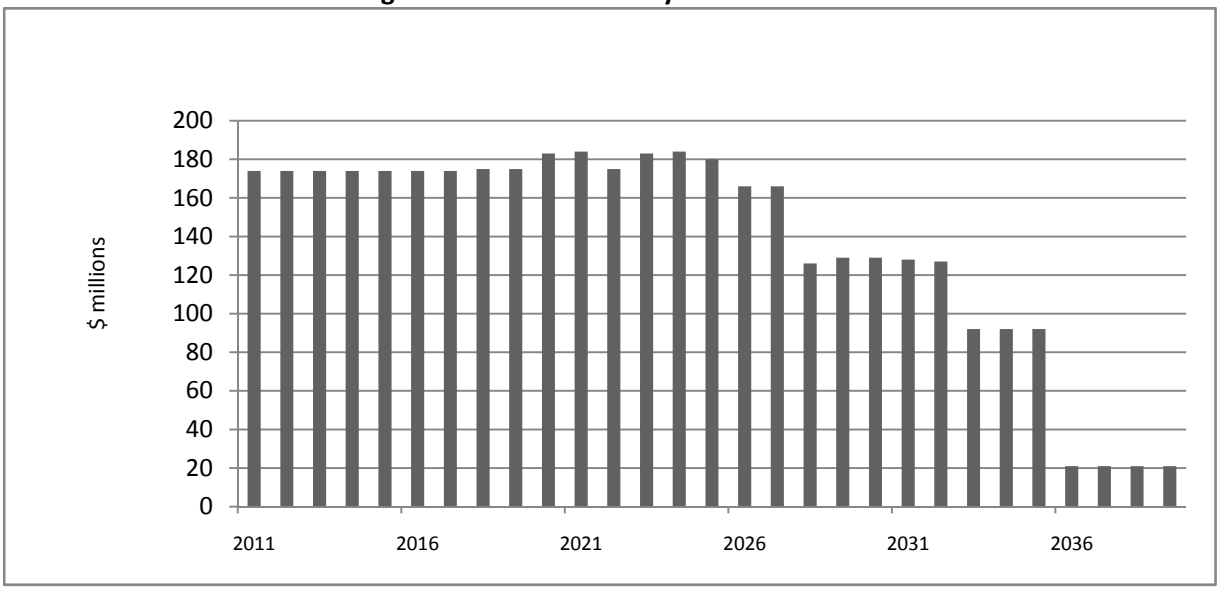
As discussed previously, the majority of the revenues funding the CWP are from user fees. The CWP has seen reductions in these revenues during the past few years due to economic conditions and water conservation efforts. The revenues from the SSCs and QSFs shown in Figure 7 had only a slight increase from FY 2007-08 to FY 2008-09, even though a 7 percent rate adjustment was implemented. Revenues dropped between FY 2008-09 and FY 2009-10. Longer-term decreases are also shown in the Revenue-Other category beginning in FY 2007-08. This is largely due to decreased interest earnings caused by both lower cash balances and reduced returns on investments. These factors, coupled with the lack of rate adjustments over the last two years have resulted in a weakened financial condition. While the CWP adjusted to reduced revenue during the past two years, these reduced levels are expected to continue in the future.

B. Debt Obligations

The CWP currently has $2.7 billion in outstanding debt, which will require almost $4 billion to repay. The future debt service schedule is shown in Figure 8. The minimum debt service coverage ratio (cash available divided by total debt obligations) required by covenant for CWP debt is 1.25x for senior lien debt and 1.1x for all debt. The City is currently in compliance with its covenant requirements. While the CWP maintains good bond ratings (AA+, Aa2, and AA by Fitch Ratings, Moody's, and Standard and Poor's, respectively), the CWP is considered to be highly leveraged. Another metric for debt evaluations is the average debt load per customer, which for similarly rated agencies is $1,462. This ratio is $4,088 for the CWP. In the most recent evaluations, the rating agencies have indicated that to maintain current bond ratings, the CWP must increase the percentage of its capital program funded from revenues and decrease the amount of debt financing.

A large portion of the debt load dates to the late 1990s, when the CWP was not able to modify user rates to provide sufficient funding for the capital program. Although the City has been able to meet its debt payments, comparison of the CWP debt level to that of other wastewater providers suggests that the debt level exceeds desired targets. Based on the American Water Works Association *Benchmarking: Performance Indicators for Water and Wastewater Utilities* report, the median debt ratio (total liabilities divided by total assets) for large utilities is approximately 0.3. The CWP's current debt ratio is 0.6, double that of the median for similar sized wastewater service providers. This indicates that the CWP is highly leveraged and needs to fund more capital improvements on a pay-as-you-go basis.

Figure 8: Debt Service Payment Schedule



C. Efficiencies

The CWP is always looking for efficiencies to avoid passing costs on to the ratepayers. Over the years, the CWP has participated in best management practices reviews, peer reviews, and benchmarking studies. Because of the perpetual nature of the CWP, there is a high incentive to implement cost-saving

measures because every dollar saved today will be available to fund tomorrow's activities. The impetus for identifying even higher efficiency opportunities got stronger over the recent years in light of the poor economic climate and the financial stress caused to the CWP by the decline in revenue. In response, BOS evaluated the following areas for increasing efficiencies.

1. Debt Restructuring

Due to the large amount of outstanding debt, the City is continually reviewing opportunities to restructure the debt to achieve savings. Table 3 shows that $2.9 billion of debt have been restructured during the past ten years, providing $416 million in debt service savings.

Table 3: Debt Service Savings Resulting from Refinancing

Fiscal Year	Amount Restructured ($M)	Debt Service Savings ($M)	Economic Gain (Present Value) ($M)	Comments
2001-02	407	34	25	
2002-03	503	1,184	43	
2003-04	551	160	36	
2005-06	350	904	46	
2007-08	605	-	-	Unknown savings because both refunded and refunding bonds are variable rate
2008-09	452	7	7	Restructuring of short-term commercial paper with long-term bonds
2010-11	74	7	4	
Total	2,942	416	162	

2. Wastewater Capital Improvement Program Prioritization

In order to maximize the benefit from available opportunities, comply with the CSSA, preserve existing infrastructure and optimize expenditures, the CWP has developed an iterative system to allow decision makers to select projects that would reduce the most risk at the lowest cost. The City developed a Wastewater CIP Prioritization Task Force comprised of division managers from planning, design, operations and maintenance, and financial planning, along with Assistant Directors from BOS and the wastewater Deputy City Engineer.

The methodology includes scoring and ranking projects based on the likelihood of failure and the consequences of such a failure. In the past two years, the CWP has deferred projects worth over $100 million that addressed the least risky conditions. Although this strategy has helped reduce costs in the

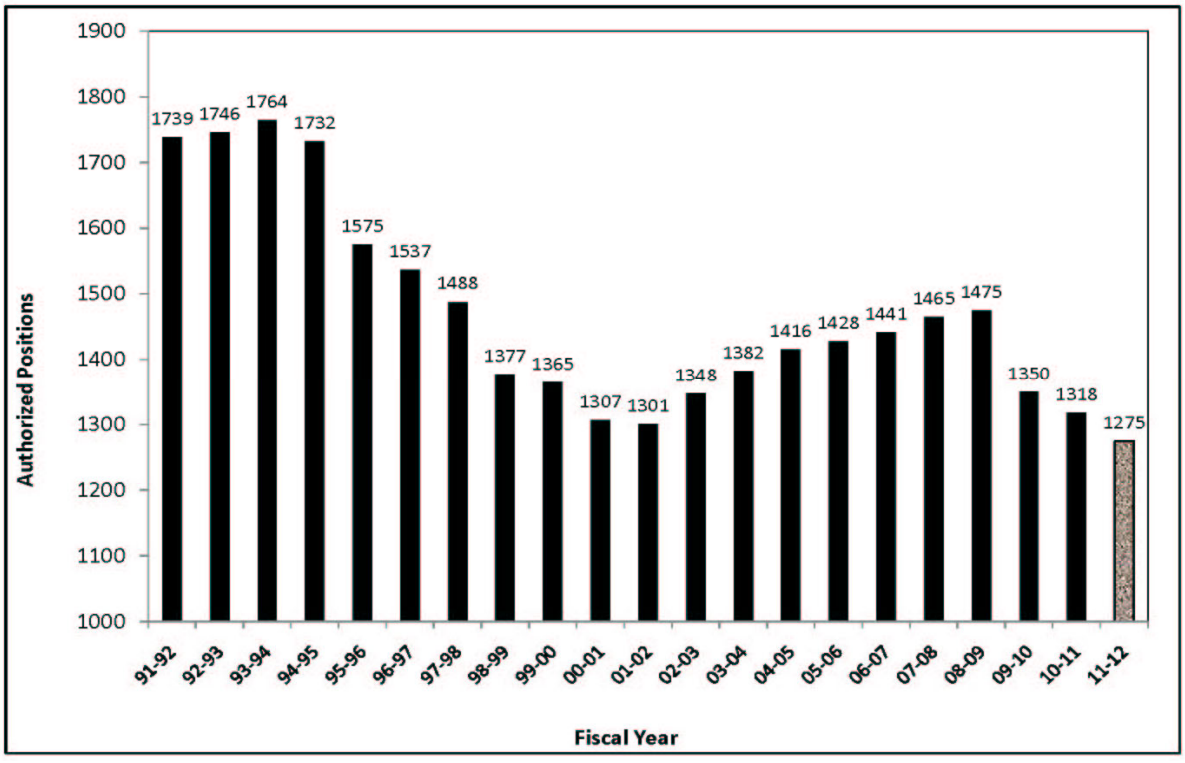
short term, continued deferral of projects is unsustainable as non-essential projects may become emergencies.

3. Staffing Reductions

BOS recognizes that in order to be a responsible agency there must be a commitment to efficiency in the labor workforce, and to continue to meet the service expectations of the customers with the minimum necessary staff. To this end, BOS has significantly reduced its workforce over the last 20 years, while managing, operating, and maintaining an increasingly complex and capital intensive wastewater system.

Figure 12 presents the 20-year staffing history for the BOS portion of the CWP. It shows that the number of authorized positions has been reduced from a high of 1,764 in FY 1993-94 to 1,318 in FY 2010-11, with additional reductions projected for FY 2011-12. This represents a total reduction of over 25 percent over a period of two decades. The majority of positions within the CWP are within BOS, followed by the Bureau of Engineering, Bureau of Contract Administration, Board of Public Works, and General Services Department. Staffing reductions have been achieved by automating certain activities at the wastewater treatment plants, which has allowed the reduction and combination of station posts. Automation has allowed more efficient dispatching of crews for the collection system through use of the FAST system.

Figure 9: Clean Water (Wastewater) Program Authorized Positions - BOS



After staff reductions from 1996 through 2002, staffing levels began to rise again. This was due to the realization that the staffing levels were unsustainable and the initiation of work required for the CSSA. Although the CSSA was not executed until 2004, BOS was aware of the activities that would be required

to reduce sewer spills and began staffing up so that work could begin. Staffing reached a secondary peak in FY 2009-10, the midpoint of the CSSA. At this point, BOS was more comfortable with its ability to deliver the CSSA and was able to begin reducing staffing.

Based on the American Water Works Association *Benchmarking: Performance Indicators for Water and Wastewater Utilities* report, the median ratio of wastewater processed per employee for wastewater service providers serving populations greater than 500,000 is 0.27 million gallons per day per employee. In comparison, the CWP ratio of wastewater processed to employees in FY 2011-12, with a projected staffing level of 1,275, is projected to be 0.30 million gallons per day per employee, which is better than the median and an indicator that the CWP is efficient.

4. Operational Efficiencies

While BOS is always exploring ways of operating more efficiently and reducing costs, this effort gained a new urgency in the fall of 2008 as revenues declined due to the economic recession and water conservation efforts. Table 4 shows how the treatment plant and water reclamation plants have reduced operating expenses by more than $27 million during the past two fiscal years.

Table 4: Operational Efficiencies

Area of Savings	FY 08-09	FY 09-10	Reasons
Contractual Services	$1,717,870	$5,211,802	Reduced biosolids hauling & efficient farm management
Operating Supplies	$2,757,328	$3,595,544	Optimized use of process chemicals
Utilities	$7,939,084	$5,870,070	Savings in steam, electricity and potable water categories (water conservation)
Total	$12,414,282	$14,677,416	

In the wastewater collection system, during these years over $600,000 in reductions were identified that were used to offset increases in utility costs and operating supplies.

While BOS will continue to explore cost savings ideas, there is no guarantee that the savings shown above will continue. For example, while HTP was successful in reducing chemical consumption during the past two years, earlier this fiscal year they began experiencing problems with the treatment quality and had to increase the chemical dosages, so it is unlikely they will have savings in this category in FY 10-11.

D. Financial Metrics

Periodically Fitch Ratings issues a report of 50 water and sewer financial medians. The most recent report was issued in April 2010. Table 5 shows how the CWP compares to these medians in several key ratios used in the rating process.

Table 5: CWP Key Ratios Compared to Industry Medians

Key Ratios	Rating Category				IV.	V.
Capital Demands and Debt Policies	AAA	AA	A	All Credits	CWP[(1)]	CWP vs. AA
Debt to Funds available for Debt Service (x)	3.6	5.5	6.7	5.5	10.1	worse
Total Outstanding Long-term Debt/customer ($)	827	1,462	1,738	1,297	4,088	worse
Total Outstanding Long-term Debt/capita ($)	219	384	518	375	639	worse
Coverage and Financial Performance						
Three-Year Historical Average Senior Debt Service Coverage (DSC) (x)	3.2	2.8	2.2	2.9	2.8	same
Current Senior Lien DSC (x)	2.9	2.5	1.9	2.6	2.5	same
Three-Year Historical Average Total Debt Service Coverage (DSC) (x)	3.1	2.2	2.2	2.4	1.61	worse
Current Total Lien DSC (x)	2.7	2.1	1.6	2.2	1.49	worse
Days Cash on Hand	544	344	171	344	205	worse

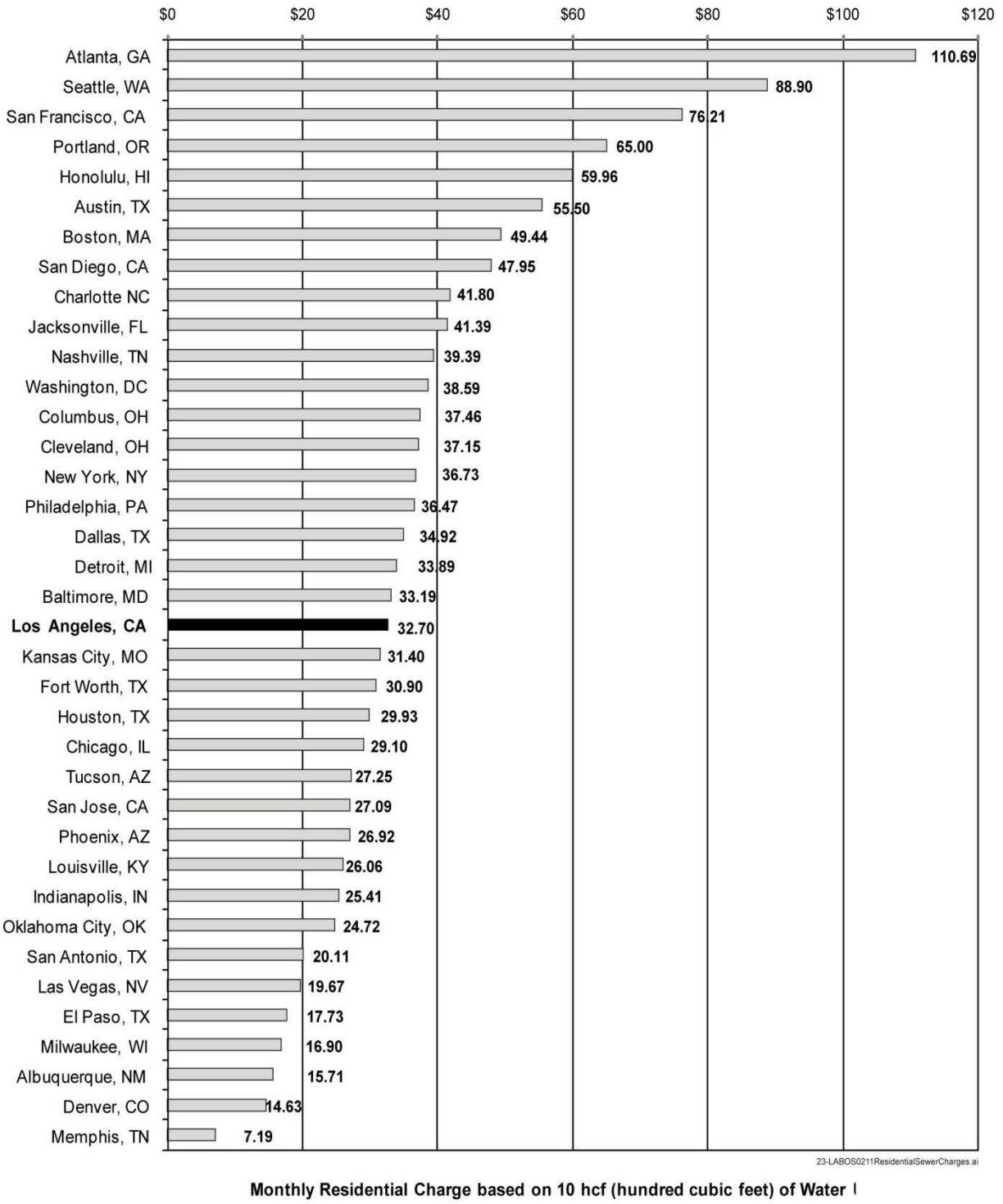
(1) CWP data are from the FY 2009-10 Financial Statements.

In all categories other than senior lien DSC, the CWP's metrics are worse than the medians associated with an AA rated credit. The senior lien DSC has declined for two years and is expected to decline further in FY 2010-11, which may move these ratios into the "worse" category as well.

E. Rate Comparison

The CWP regularly evaluates its rates against both its national peer group of large cities and local cities. Figure 10 shows the large city comparison normalized for ten hundred cubic feet (10 hcf) of flow per month. The typical Los Angeles single family residential monthly charge of $29.88 per month is actually a little less than what is shown on the chart because our customers' typical discharge is approximately 9.14 hcf instead of 10 hcf. The Los Angeles sewer service charge is in the middle of the range. The cities at the top of the list are currently under consent decrees or other legal obligations, some of which were caused because the agencies have not kept pace with the necessary infrastructure reinvestment.

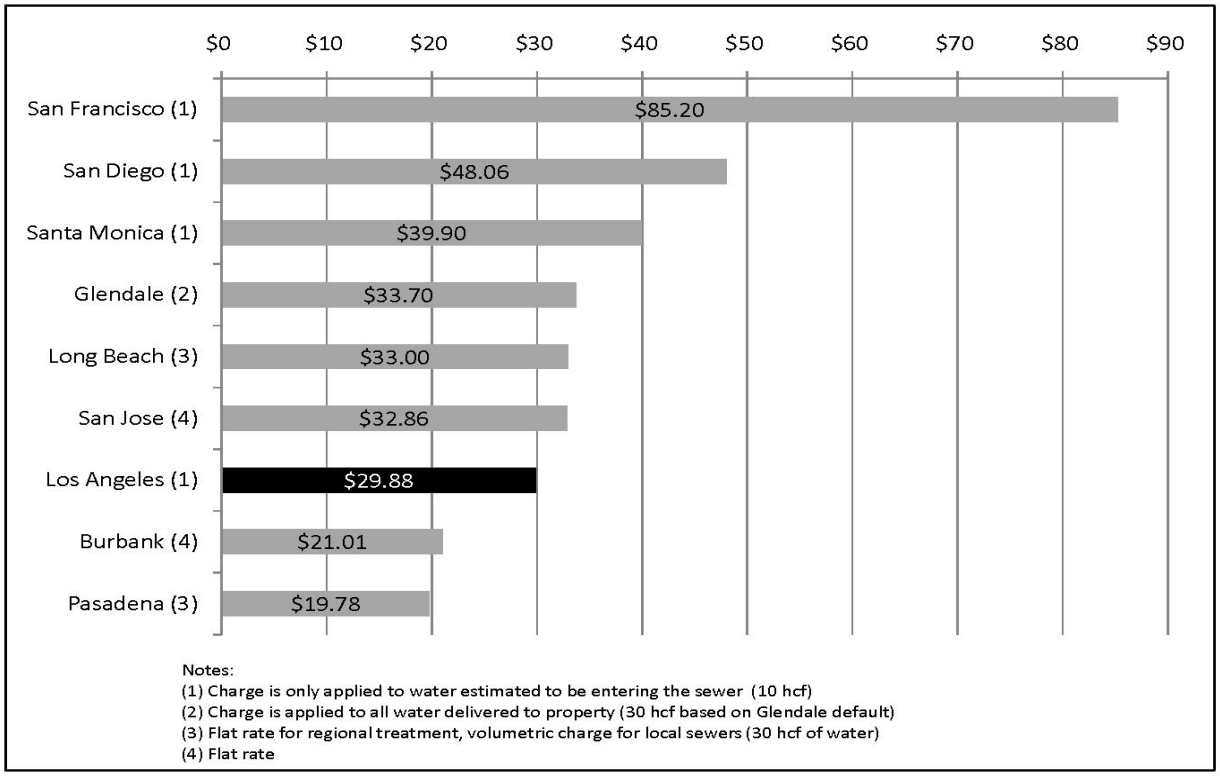
Figure 10: 2009 Typical Monthly Single Family Residential Sewer Service Charges for Cities with Population > 500,000



Source: 2010 Black & Veatch Rate Survey

In the comparison against local agencies (Figure 11), Los Angeles is again in the middle of the range. Because there was not an existing comparison normalized to the same flow amount, the amounts reflected are the ones the agencies provide to represent their typical customer.

Figure 11: 2011 Typical Monthly Single Family Residential Sewer Service Charge for Local Cities



The California State Water Resources Control Board periodically prepares the *Wastewater User Charge Survey Report*. The most recent report was issued for FY 2007-08. In that year, the average monthly single family residential charge was $33.82, with the highest charge reported at $231.92. By national, state and local measures, the CWP typical residential bill is a reasonable amount

VI. Future Needs and Drivers

The CWP has many short-term and long-term challenges in meeting its regulatory and environmental commitments, preserving the sanitary sewer system and treatment plant infrastructure, while meeting the service expectations of its customers. This section explains the future needs and drivers for the proposed rate adjustments including the established service expectations for the CWP, the risks of unchanged rates to the CWP, other potential risks that are not addressed by the proposed rate adjustments, and opportunities presented by the implementation of the rate adjustments. Each of these needs and drivers are described using the five major categories of environmental compliance, infrastructure reliability, operational efficiency, financial management, and customer service.

A. Service Expectations

The CWP has established responsible service objectives to provide the necessary sanitary sewer service to its customers in the City of Los Angeles and surrounding communities. The service expectations define the primary measures of success and the actions needed to achieve them. The services provided by the CWP are driven by regulations and by sound business practices geared towards affordability to rate payers optimizing the use of revenues.

The rate adjustments recommended in this report target the most immediate, well-defined needs, most of which are linked to litigation and aging infrastructure renewal needs. In addition, BOS has identified potential long term needs that are less defined at this point and that would be mostly related to changing regulations. In order to prevent the proposed rate adjustments from becoming overly inflated, those long-term potential additional financial needs are not included, but are described in the following risk analysis section.

In order to adequately meet the currently established CWP service objectives, mitigate risk, and take advantage of available opportunities, there are several future needs facing the CWP that fall within the following categories:

- Environmental Compliance
- Infrastructure Reliability
- Operational Efficiency
- Financial Management
- Customer Service

1. Environmental Compliance

The overarching goal of the CWP is to provide stewardship of the environment, now and in the future, in accordance with the federal, state and local regulations for water quality, as well as related regulations such as air quality standards. In this regard, the CWP has had many successes, as evidenced by consistent compliance with water discharge regulations and the cleanup of Santa Monica Bay, but it has also had its share of challenges, as witnessed by the CSSA-enforced reduction in sanitary sewer spills and mandatory collection system renewal program.

The CSSA requires successful completion of the agreed upon sewer spill reduction measures by June 30, 2014. Many of the CSSA requirements have already been completed. In Year Six of the agreement (2009-10), the City continued to meet the requirements of the CSSA, resulting in the following accomplishments:

- 816 miles of sewer (70 percent of the entire system) were CCTV-inspected and rated.
- 125,417 sewer pipe reaches were cleaned.
- Average sewer renewal of 70 miles per year for the three-year period ending with Year Six.
- 13,050 inspections were conducted of Food Service Establishments for compliance with FOG control best management practices

Over the next three years, the CWP will need to renew a three year rolling average of 60 miles per year. The sewer renewal cost is anticipated to be $82 million. Additional remaining requirements for the final three years of the CSSA include the continuation of the annual planning, inspection, and cleaning requirements at an annual cost of $5 million. The City must also complete odor control and supplemental environmental projects totaling $22 million prior to the CSSA deadline.

The efforts of the CWP in addressing the CSSA requirements have resulted in significant sewer overflow reductions over the past 10 years. Ultimately, the City's goal is to maintain compliance, and continue to reduce sewer spills in an economically responsible manner.

The CWP must continue to comply with regulatory requirements, and its related environmental commitments to air and water quality. In order to reduce potential liabilities, the CWP will continue to monitor and anticipate, to the greatest extent possible, future regulatory requirements that may impact the CWP and its commitments. Funding for the continued planning and monitoring of known regulatory requirements and environmental commitments is included in the proposed rate adjustments. However, the possibility remains of future regulatory or environmental compliance requirements that could substantially impact the financial position of the CWP and could require future rate adjustments.

2. Infrastructure Reliability

In order to provide meet the service expectations of its customers, the CWP must maintain the reliability of its infrastructure. The City's infrastructure does not have an infinite lifespan, and needs continuing renewal in order to provide reliable service. This means rehabilitating old sewer mains, maintenance holes, and replacing aging equipment and structures at treatment and pumping plants. The CIP contains the capital projects and estimated costs for the renewal of the City's infrastructure for the next ten years. The most current CIP project list is provided as Attachment D.

The City is required to maintain the system in good working order first and foremost in order to provide good service to the ratepayers. This is also a requirement of the General Resolution governing the CWP's debt issuance program. Most importantly, inadequate maintenance of the assets would result in greater long term liabilities for the City. Currently, over 70 percent of the sewers are more than 50 years old. The average useful life of collection system infrastructure is approximately 80 years and 30 years for treatment facilities. As many of the CWP's facilities near the ends of their useful lives, it is imperative that the CWP continue to rehabilitate and replace its aging infrastructure.

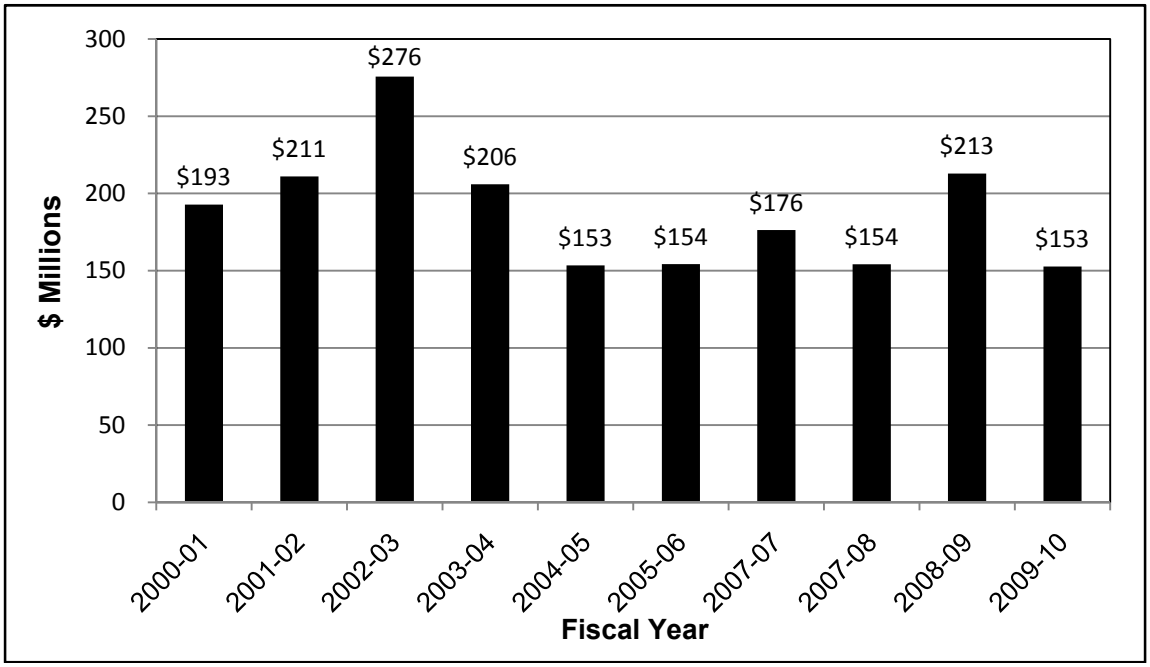
The American Water Works Association has collected information from a wide cross section of water and wastewater utilities across the United States and compiled it in the publication *Benchmarking Performance Indicators for Water and Wastewater Utilities: 2007 Annual Survey Data and Analyses Report*. Based on the benchmarks from this report, the measure of system renewal or replacement rate ranges from 0.7 percent to 7.4 percent for wastewater pipelines and collection systems and from 1.9 percent to 5.0 percent for wastewater treatment and pumping facilities. The current book value of the City's wastewater infrastructure is $3.8 billion; however, the estimated replacement value of the City's wastewater system exceeds $20 billion. The CWP's current investment in infrastructure renewal is budgeted at $119 million in FY 2010-11, approximately equivalent to a 168-year replacement cycle. This

amount is expected to be $150 million in FY 2011-12, a 133-year replacement cycle. The CWP's current rate of infrastructure renewal is far below the actual anticipated lifespan of the City's wastewater treatment plants (30 years) and sewers (80 years). This presents a significant risk as discussed in the Risk Analysis section of this report.

The CWP requires a level of funding for the Clean Water CIP to maintain the reliability of the City's wastewater infrastructure and to meet the service expectations of its customers. The CWP manages a CIP that is continually evaluated and prioritized based on the risk associated with each of the capital projects. The CIP is a compilation of capital projects developed from a variety of sources including master planning projects such as the Integrated Resources Plan (IRP), rehabilitation and replacement projects for each of the treatment plants determined by operational managers, and projects required by regulatory or legal stipulations such as the CSSA for the wastewater collection system.

The level of CIP investment on an annual basis has fluctuated over the years, as shown in Figure 12. Although the CWP CIP expenditures have averaged about $200 million per year, many of these projects resulted from regulatory and legal drivers. As available funding shrinks, the capital needs have not disappeared but have been deferred to future dates or have been addressed through short-term fixes. The CWP infrastructure projects implemented are mainly rehabilitation projects that aim at keeping the operations going at the most optimized overall cost. In the last two years, several projects at the four treatment facilities were delayed due to the economic constraints, and are becoming increasingly important to avoid failure and more costly reactionary projects.

Figure 12: Historical Capital Improvement Program Investment

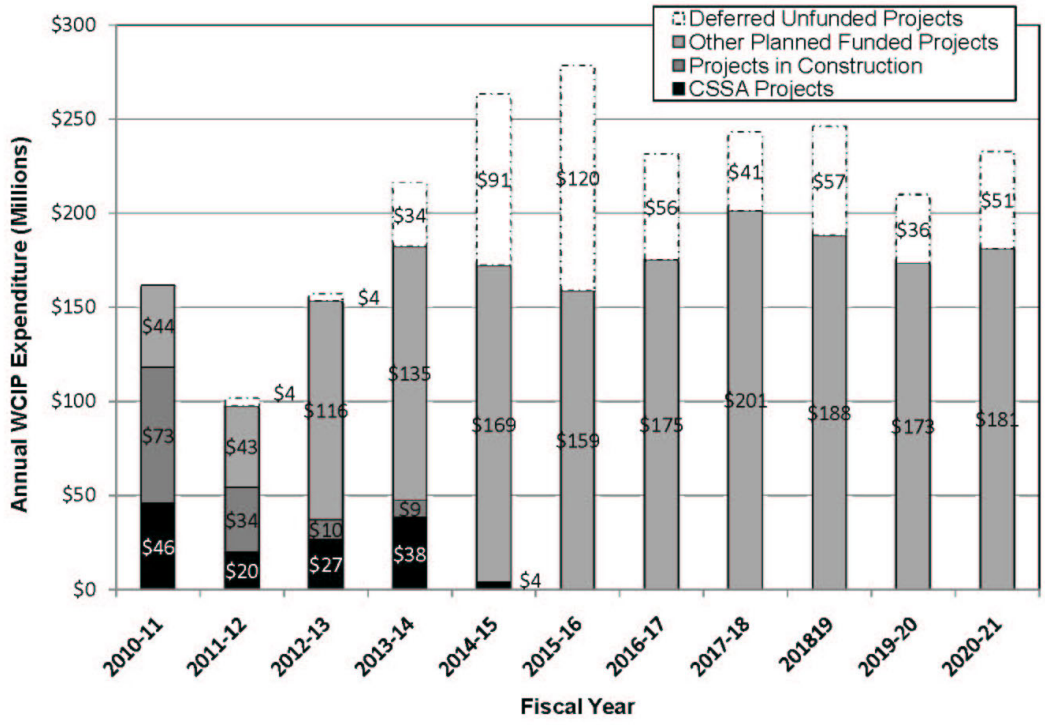


Construction costs only

Figure 13 presents the proposed near term CIP. The CIP funding that is needed in order to meet the current service expectations of our customers, at a level of risk that has been determined to be

manageable, is a total of approximately $760M over the next five years. The remaining $270 million in projects will be deferred into the following five years. Moving forward, the City needs to balance the risk of deferring replacement of aging infrastructure with increased ratepayer costs to ensure adequate future service and reduce exposure to reactionary projects that can cost ten times more than planned projects.

Figure 13: Proposed Clean Water Capital Improvement Program



Does not include City labor costs

3. Operational Efficiency

As discussed earlier in this report, the BOS has taken significant steps towards optimizing its workforce and staffing levels during the past 20 years. Future operational efficiencies for BOS lie in its ability to control its O&M costs and effectively manage its workforce.

One area that will have a significant impact on O&M costs in future years is the loss of the favorable power rates at HTP due to the LADWP terminating the digester gas-power exchange agreement. BOS is currently requesting proposals for beneficial use of the digester gas in expectation of reducing or offsetting future higher power costs. In supporting the service expectations of its customers, BOS will continue to evaluate opportunities for increasing the efficiency of its workforce, while maintaining or decreasing the overall cost to its ratepayers.

4. Financial Management

The CWP future financial management goals revolve around maintaining compliance with debt covenants, maintaining an AA bond rating, and maintaining sufficient cash reserves to meet covenant and emergency requirements.

The CWP outstanding debt is approximately $2.7 billion and the CWP is considered highly leveraged by debt rating agencies. In order to return to a state of preferred leverage, the CWP will look to increase its cash/reserve financed CIP and reduce the level of debt in the future. The City recognizes that with continued reliance on leverage for financing of its CIP, it risks the ability to meet debt service coverage ratios, covenant non-compliance, reduction in bond rating, and even a potential call on bonds. In order to minimize the risk of such unfavorable conditions, the CWP plans to target a debt service coverage ratio of 2.50 on its senior lien debt and 1.50 for its total debt. The rate recommendations contained in this report meet these targets no later than FY 2012-13.

To further improve its financial position, the CWP will target industry standard debt financing practices for financing of its CIP. During its last bond rating, the rating agencies noted that since the recession, the CWP's commitment to cash fund its capital program had slipped from 50 to 38 percent.

The debt ratio, a measure of the utility's reliance on debt financing, provides an indication of the fiscal health of the organization. As previously noted, the CWP's current debt ratio at 0.6 is double that of similar sized wastewater providers. The CWP will start moving towards a debt ratio of 0.3 in its efforts to maintain prudent financial management policies.

The CWP senior lien debt is currently rated as AA+, Aa2, and AA by Fitch Ratings, Moody's, and Standard and Poor's, respectively. The CWP targets maintenance of this bond rating. In its last rating process, Fitch noted the following:

- Financial metrics of the City have weakened,
- SSC Rates are competitive with sufficient room for upward adjustment,
- Debt levels are high with planned large capital improvement needs, and
- Service area is large with diverse economic underpinnings.

The rating agency noted that the City should evaluate sound fiscal metrics and return to its prior commitment to fund capital projects through equity sources. The current forestalling of rate increases was viewed unfavorably. In order to maintain the current bond rating, various financial policies, including increase in cash financed projects will need to be evaluated. Failure to adequately maintain these ratings will result in increased cost of borrowing.

As part of its bond covenants, the CWP is required to maintain a $5 million Emergency Fund and a 45-day operating reserve. The Emergency Fund is intended to pay for extraordinary and unexpected repair or replacement expenses or liability claims and if used, must be replenished by the end of the fiscal year. The 45-day operating reserve is intended to meet the requirement that revenues cannot be used for debt service or capital expenditures if there is not sufficient cash available to meet 45 days of operating expenses. Due to these restrictions, neither of these is available for use in the event of revenue

shortfalls, inability to access bond markets, or other events that can impact the CWP cashflow. Historically, when rates are developed for the CWP, an attempt has been made to maintain a minimum O&M cash balance of $30 million and a minimum capital balance of $100 million, including proceeds of debt. However, since these working policies have not been formally adopted, there have been many occasions when these amounts have not been maintained.

Maintaining a strong cash position is critical in allowing the CWP to continue functioning during periods of declining revenues, inability to access the debt market, or unexpected expenditures. An example of this occurred in 2008 and 2009 when the CWP was unable to access debt markets for approximately six months at the same time revenues were declining due to the economic downtown. From September 2008 to March 2009, the CWP's cash balance declined from $120 million to $36 million. The CWP had to stop awarding construction contracts and defer O&M expenditures. If the CWP had not entered the financial crisis with a relatively healthy cash balance, the program would have had to stop projects under construction, at great expense due to extended overhead, demobilization and remobilization costs, and contractor claims.

In order to maintain the financial stability of the CWP, it is recommended that the past practices be formalized and rates be developed to maintain minimum cash balances of $30 million and $100 million for O&M and capital, respectively. The rate recommendations contained in this report do meet these financial management targets in FY 2011-12 and beyond.

5. Customer Service

The City's goals to improve customer service will focus on a continued reduction in sewer odors and implementation of programs such as those to provide loans for customers to renew sewer laterals or connect to the City sewers.

Improve Sewer Odor Control

The City plans to continue to control and mitigate foul sewer odors that have a direct impact on its customers. Odor control activities are routinely reported to the Community Odor Advisory Board and in written reports to the plaintiffs. The City continues to evaluate the best methods to control and eliminate odors throughout its system. A system-wide air flow study titled Air Treatment Facilities (ATF) Evaluation Study has been conducted, which included field tests and a thorough analysis of sewer odors. The City plans to conduct analysis to determine whether ATFs are the best solution for each application. BOS is committed to continuing the reduction in sewer odors through the improved and innovative use of best management practices for odor control.

Loan Program

One area of service improvement that BOS recommends introducing is the establishment of a revolving loan program. The loans would assist property owners with decommissioning existing septic tank systems and establishing new connections to the City's sewers or to replace or line deteriorated lateral sewer lines. Over the years, BOS has received many requests for this type of financial assistance, but has not been able to provide this funding.

The City's responsibility for the sewer system begins at the mainline sewer. It is the responsibility of the homeowner to connect to the sewer and to maintain their lateral connection. Because of this delineation, BOS cannot pay for improvements on private property. A revolving loan program would allow BOS to help customers while still maintaining all fiduciary responsibilities to the ratepayers. Specific recommendations for implementation of this program will be developed over the next few months based on feedback from customers.

Sub-Metering Program

As a component of its customer service, and a commitment to equitable billing of its ratepayers, BOS has encouraged the use of a sub-metering program for residential customers who would like to replace the default "winter water use" program with actual meter data for water that does not drain to the sewer. The private sub-meters benefit many customers who use a greater than average volume of water for irrigation than for tributary uses. Within the last year, LADWP has automated the billing of customers with submeters, which will support expansion of the program. BOS intends to continue to support and encourage this program for the benefit of its customers.

Low Income Subsidies

BOS offers a Low Income Subsidy rate for customers within qualifying income levels. This rate reduces the cost of sewer services for a participant's permanent primary residence, similar to other programs that exist for electricity, water and refuse collection. This program is part of BOS' commitment to providing the basic necessity of wastewater collection and treatment for all of its customers at a fair and reasonable cost. As discussed in the following Revenue Requirements section, BOS is requesting that the low income subsidy program be modified to allow BOS to adjust the annual low income subsidy to accurately reflect the costs of the program, and recover these costs through an annual rate adjustment.

B. Risks of Unchanged Rates

This section examines the impacts to the CWP if the current level of funding is not changed, and of potential risks that the CWP may face in the future. The majority of the impacts will be to the capital program since that is the last call on available funds; however, this will translate into an impact on operational issues.

1. Environmental and Regulatory Risks

Incomplete CSSA

The remaining three years of the CSSA require a minimum average of 60 miles/year of sewer rehabilitation and the completion of four SEPs and an additional ATF. Current funding levels will allow the completion of projects already under construction, including the SEPs, but are not sufficient to allow the award of the final ATF or the remaining rehabilitation projects contributing to the 60-mile requirement.

If the City cannot complete the required projects, there are two possible outcomes. In the first case, the plaintiffs are willing to negotiate and extend the compliance schedule, but would likely require additional projects to be added to compensate for the delays. In the other scenario, the plaintiffs are

unwilling to negotiate new terms, and penalties are imposed for the projects that are not completed. In the worst case, the $550 million lawsuit could be reopened, with the potential for even larger monetary impacts to the City.

2. Infrastructure Risks

Emergency Projects

If planned work is deferred due to a lack of funding, it is likely that more emergency failures will occur. These system emergencies increase costs to the CWP in a number of ways. First, emergency contractors may need to be mobilized and are typically paid on a time and materials basis, which is more expensive than if the project can be awarded to the lowest bidder. Second, there are frequently overtime costs associated with emergency work. Third, emergencies in the sewer system that impact private property may result in claims for damages. For large sewer collapses, it is estimated that emergency repairs can cost up to ten times the amount they would have as a bid and award project. The CWP has had several examples of this over the past five years:

- La Cienega Interceptor Sewer at Jefferson Boulevard and Rodeo Road, $15 million
- North Outfall Sewer at the Los Angeles River, $17 million
- North Outfall Sewer at Trinity and 23rd Street, $10 million

If these rehabilitations had occurred as normal rehabilitation projects though the bid and award process, they would each have been in the $1-2 million range. Photographs and descriptions of these major sewer failures are included in Attachment E.

In addition to higher costs, emergency projects also result in more community impacts. When a bid and award project is being designed, great thought is given to locating excavations in the least impactful way. Traffic plans are prepared to maintain adequate traffic flow through the area. But when an emergency collapse occurs, public safety is paramount. Therefore, it may be necessary to close entire intersections or streets to stabilize the situation. In addition, emergency collapses typically result in odor complaints, community nuisances, potential beach closures, and bad publicity for the City.

While the effects of emergency projects described above are costly and inconvenient, the impacts are manageable. Far worse to contemplate is the potential for catastrophic failures that cannot be mitigated. System failures have the potential to result in environmental disasters, injury or loss of life. The failure of the HTP outfall would result in treated effluent being released right at the beach rather than five miles out. The failure of the Venice Pumping Plant force main would result in millions of gallons of raw sewage being released into the Santa Monica Bay. And worst of all, the failure of a large sewer under a street could result in significant injuries or deaths. Figure 14 shows the failure of a large sewer that collapsed under a building. Luckily no one was present at the time, so there were no injuries.

Figure 14: Collapse of the La Cienega Interceptor Sewer under a Building

3. Operational Risks

Permit Violations

In addition to the risks described in the previous sections, deferring CIP projects will also translate into operational issues. When equipment is failing at the treatment plants, there is a very real risk of permit violations, which can result in fines, consent decrees, and more stringent permit requirements in the future.

Reduced Planning to Identify Problems

BOS has developed planning tools that have been successful in enabling the expenditure of capital funds at the right place and at the right time. At the current funding level, planning efforts would be reduced, meaning that the funds that are available for capital work may not be spent at the location of greatest need. The reduced planning will also contribute to an increase in emergency projects, with the associated additional costs and related financial, environmental, and public health impacts.

Increase in Sewer Spills

Prolonged deferral of capital projects and reduced planning could result in an increase in sewer spills. As a result, BOS may be exposed to potential litigation similar to the litigation that resulted in the CSSA. In the long term, without the continued investment in infrastructure renewals, there could be a return to the level of sewer spills that were seen just 10 years ago, with approximately 2 spills happening somewhere in the City every day of the year. In addition to the local impacts to residents and businesses of sewage overflowing in streets, properties, and parks, there are the potential regional impacts of closed beaches and contaminated rivers, bay, and ocean. Ultimately, these events all result in dramatic increases in costs in both the short and longer term.

4. Financial Risks

Reduced Bond Rating

The City's sewers have an average expected useful life of 80 years, so it makes financial sense to debt finance them so the costs can be shared by future customers who will have the benefit of the infrastructure improvements, in addition to current ones. This means that the City will need to access the debt markets for many years to come. Therefore, the bond rating for the CWP is very important in order to maintain access to the market and keep borrowing costs lower. Without rate adjustments, the CWP will be unable to issue bonds after FY 2012-13.

The CWP senior lien debt is currently rated as AA+, Aa2, and AA by Fitch Ratings, Moody's, and Standard and Poor's. In their last ratings report, Fitch stated that a "trend of forestalling rate hikes beyond what is currently expected would be viewed negatively." Continued reliance on debt financing without a move towards more cash financing could result in rating downgrades, reducing the City's ability to borrow funds effectively.

Reduced Financial Stability

During the past few years, the CWP has learned the importance of maintaining sufficient cash reserves. With the current funding levels, the CWP will have to start using its cash reserves to maintain operations and service debt. While this can be done in the short-term, without receiving revenues to replenish the cash reserves, the CWP risks significant financial problems in the event of a revenue drop or if the debt markets cannot be accessed. In the past, low balances have led to delays in making monthly General Fund reimbursements, and if significant enough, could require the stoppage of construction projects.

5. Customer Service Risks

Increase in Sewer Odors

During the past several years, the CWP has made a concerted effort to address odor problems in the collection system. Some solutions include converting maintenance holes to trap maintenance holes to keep odors from being released. In some areas, sewer lateral connections are made directly into large sewers, which can allow odors to migrate into homes. The CWP has installed eight-inch diameter sewers parallel to the large sewers and reconnected the sewer laterals to the small sewers. Without a

rate adjustment, such discretionary programs cannot continue. Continued odor nuisances may also have adverse impacts on City businesses and property values.

C. Potential Risks Not Addressed by Proposed Rate Adjustments

As mentioned previously, the proposed rate adjustments are required to address a series of well-identified needs to meet the responsible service objectives. The following section describes a few relevant long-term potential needs that the CWP will likely face in the future. The timeline is not defined at this point, nor are the strategies to address future potential requirements; however, it is important to include this discussion in the report so there is clarity about which issues are not covered by the proposed adjustments. In developing the proposed rate adjustments, BOS did not plan for a worst case scenario or escalate the amounts to cover the future risks described in this section.

1. Environmental and Regulatory Risks

Future Water Quality Regulations

While ocean discharge wastewater treatment plants have historically benefited from less stringent discharge criteria than fresh water dischargers, there is an increased focus by regulatory agencies to scrutinize the effect of centralized discharge of wastewater on the marine biology. As a result, nutrients such as nitrogen and phosphorus may be deemed harmful and be regulated in the future. The CWP has implemented nutrient removal at its satellite plants, Tillman and Glendale, at a cost of more than $135 million. The costs to construct these processes at the Hyperion plant have not been calculated, but can reasonably be expected to be in excess of $1 billion.

In the last decade, contaminants of emerging concerns (CECs) including personal care products, pharmaceuticals, and other food additives such as sucralose, have been under investigation because of their potential to interfere with the endocrine system of humans and animals. Regulations are being drafted for the wastewater reuse applications, and the State Water Resources Control Board (SWRCB) is also evaluating potential regulations for ocean discharge. The economic impact of this type of regulation is difficult to estimate at this point, however, one thing is certain; the technologies required to address them would be costly. Potential technologies may include oxidation with ozone or other advanced oxidation processes relying on UV light radiation and hydrogen peroxide addition, or alternatively, separation processes such as reverse osmosis membranes.

The CWP is currently discharging treated wastewater to the Los Angeles Harbor at its Terminal Island Water Reclamation Plant; localized water quality regulations may render this practice unfeasible in the future. The CWP would be faced with only costly options including a new outfall to the ocean, or a reuse scheme that would address 100 percent of the flow. In this latter scenario, brine would remain an issue and may require a costly disposal option. BOS has been investigating this issue for some time and is working on an innovative approach relying on injection of waste streams (i.e. brine, biosolids) into depleted oil fields. The permitting of this practice is difficult and BOS is currently conducting a demonstration project in support of a broader permitting efforts.

Future Air Quality Regulations

Similar to water quality regulations, the regulations for air quality are trending towards more stringent limits in terms of pollutants, including particles and greenhouse gases. BOS will be affected directly, through its waste water treatment processes modifications to reduce direct emissions, and indirectly through reduced options for biogas utilization, and an overall increase in energy costs.

Future Climate Change Impacts

Observed climate change patterns will affect the CWP's operations. Longer periods of drought in arid southern California, coupled with more violent storm events would result in less sewer dilution via infiltration under normal operations, and increased potential for sewer overflows, and higher wet weather flow peaking, during storms. Handling these new weather patterns will require additional investments for BOS. Also, climate change legislation, such as the initial steps taken under the AB 32 regulations, could impact the CWP through various operational channels that require costly compliance with carbon cap and trade regulations.

2. Infrastructure Risks

Natural Disasters

In addition to earthquakes, Southern California is also subject to severe impacts from wild fires, flooding, and severe drought. According to climate change scientists, these natural disasters will likely increase in frequency and severity. The CWP has prepared its infrastructure to be reliable under normal operating conditions, and has a response plan for emergencies, but cannot predict the timing, size, and severity of the impacts from natural disasters. At this time, no funds are being requested as part of the proposed rate adjustments for additional protection or increased reliability of infrastructure in the event of future natural disasters.

Major Infrastructure Failures

While the CWP has developed an effective program of risk management, which it uses to guide the priorities of the capital program, there remains the real possibility of unforeseen infrastructure failures within the collection system and treatment plants. For example, an enormous amount of research has been conducted in the methods and circumstances of pipe failures, but ultimately these failures cannot be accurately predicted or understood. In fact, it has been shown that the age of sewer pipes, the primary factor typically used in developing a risk-based asset management program, does not have a direct correlation to the timing of pipe failures. The proposed rate adjustments include a measure of financial stability for the CWP that will help in responding to these types of emergency infrastructure failures, but no additional reserve funds have been set aside specifically for these situations.

3. Operational Risks

Future O&M Cost Increases

As recent events have shown, the cost of vital operating expenses such as energy and chemicals can skyrocket overnight based on global market conditions and international conflicts. As described previously, BOS has made substantial progress in increasing the efficiency of its operations and

maintenance activities, and in setting targets that maintain these levels into the future. However, there remains the possibility of a future economic crisis, in the United States or internationally, that could drive a severe increase in O&M costs that could affect the financial stability of the CWP. The proposed rate adjustments do not include a buffer or hedge against this possibility, other than a reasonable estimate of cost inflation at 3 percent per year.

Future Biosolids Disposal Requirements

The CWP's main disposal method for digested biosolids is truck hauling and land application on farm land in Kern County. The voters of Kern County passed Measure E, which banned this practice. While the City has brought a legal challenge against this measure, it is possible that in the future, the CWP may be required to develop alternative reuse or disposal practices at a greater cost to its ratepayers.

Energy Cost Inflation

For the past 16 years, the CWP has benefited from relatively low electric power costs, thanks to an agreement with the LADWP under which HTP was furnishing biogas to the Scattergood Generating Station in exchange for steam and discounted electric power. Under this agreement, HTP benefited of the low power rate of $0.04 /KWh. This agreement is scheduled to end in 2015, after which BOS is expected to pay the normal industrial rate of approximately $0.16/KWh for electric power. BOS is implementing a Digestion Gas Utilization Project to mitigate this impact. This project will involve a public/private partnership with private financing of the facility along with a medium-term operations contract. This approach is expected to result in lower power costs than the industrial rate from LADWP at HTP; however, it will still translate in a higher power cost than the current discounted rate.

4. Financial Risks

Future Market/Economic Conditions

The local and national economic conditions pose substantial risk to BOS and the CWP. As the CWP has seen over the past three years, economic conditions can have a significant impact on the delinquency rate and on the number of customers requiring low income subsidies. The financial projections contained in this report assume flat conditions with regards to growth, but it is possible that there could continue to be more delinquencies, more bankruptcies, and more business closures. Severe inflation, and the related devaluation of currency, has also been suggested as a potential threat due to the extreme leveraging of our federal government and the dire financial situation of the State of California. While the CWP has proposed measures to improve its financial stability based on the current known conditions, the proposed rate adjustments do not have any provisions for more severe losses in revenues and other potentially negative effects of a continuing economic decline in the future.

5. Customer Service Risks

Loss of Public Confidence

A direct result and impact of not meeting the CWP service expectations could ultimately be the loss of confidence by the CWP's customers and the general public. While this is not currently perceived to pose a substantial risk, many of the other potential risks discussed in this section could result in loss of public

confidence if they are not adequately addressed in a timely or effective manner. Continued delay of capital projects for infrastructure renewal, a reduction in bond rating that increases borrowing costs, extended litigation of regulatory issues, and failures in the collection system or treatment plants are all situations that must be managed and guarded against. The CWP is committed to preventing a loss in customer confidence from these situations, and meeting the service expectations of its customers to provide protection from this occurrence.

D. Opportunities Presented by Rate Adjustments

Although the CWP faces the challenge of meeting its service requirements with limited resources, obtaining an adjustment to the SSCs and other fees at this time will present several opportunities. These are summarized in the sections that follow.

1. Competitive Bidding Environment

The current bidding environment in Southern California, and within the City of Los Angeles specifically, is extremely competitive due to the economic downturn and the limited number of available construction contracts. The result is that most projects are bidding significantly below budget estimates and engineer's cost estimates. This is a great opportunity for the CWP to take advantage of the competitive bidding environment to get more capital projects done at a lower cost, before prices rise due to an economic rebound, increase in demand for construction contractors, or other factors.

2. Local Economic Benefits

The direct local economic benefits of CIPs have been studied and shown to have a substantial impact. A recent report by the Cadmus Group for The U.S. Conference of Mayors, determined that Water and Wastewater Infrastructure investment stimulates the nation's economy and creates jobs. For every one dollar of water and sewer infrastructure investment, this report estimates that Gross Domestic Product (GDP) increases by $6.35 in the long-term. For each additional dollar spent on operating and maintaining water and sewer industry, the increase of revenue or economic output for all industries is increased by $2.62 in that year. In addition, every job added in water and sewer creates 3.68 jobs in the national economy to support that job.

On December 17, 2010, the City Council approved the Department of Public Works Project Labor Agreement (PLA). This included a Public Infrastructure Program list of projects expected to be covered by the PLA. 41 of 51 projects in the list were from the CWP. These projects and other capital projects from the proposed CIP will provide substantial and direct benefits to the residents of the City of Los Angeles and the local economy in general.

3. Customer Involvement

This report on the CWP and the process of requesting an SSC adjustment provides a valuable opportunity to educate the CWP's customers on the services that they are currently provided, the risks inherent in operating and maintaining the wastewater infrastructure, and the substantial needs for continued infrastructure renewal and regulatory compliance. With increased awareness and knowledge of the CWP, the ratepayers can become more actively involved and engaged in the programs and projects that directly impact them. This education and awareness will pay dividends for both the

customers and the CWP in directing efforts towards those that prove to be the most valued and beneficial.

VII. Required Revenues and Proposed Rate Adjustments

Although the BOS has improved its efficiencies and reduced its costs, rate adjustments are needed to provide the revenue to meet the existing debt obligations, the CSSA requirements, and to fund the investment in aging infrastructure and help minimize the risk of future system failures.

This section summarizes the revenue requirements and describes a variety of alternatives to enhance revenues to allow the continuation of the CWP's responsible level of service and to mitigate the risks posed by insufficient revenues.

A. Revenue Requirements Summary

The BOS developed a revenue requirements projection for the SCM fund over the next 10 years using the existing obligations escalated at 3 percent per year (unless actual escalation factors were known) and the prioritized capital program. The forecast model shows that the additional revenue needs for the next ten years will total $2.3 billion. While the current level of funding is sufficient for projected O&M costs, it is not high enough to fund the necessary CIP or to allow additional debt financing beyond FY 2012-13.

B. Proposed Rate Adjustments

In order to meet the revenue requirements, the BOS evaluated rate adjustment alternatives for all of the CWP user rate categories. The Clean Water Act requires that every wastewater agency adopt a system of charges to assure that each recipient of wastewater treatment services will pay its proportionate share of any services provided by the agency. With this in mind, BOS performed a comprehensive evaluation of all of the major user fees that support the CWP. Adjustments are proposed for the following revenue sources:

- Sewer Service Charge
- Quality Surcharge Fee
- Industrial Waste and Septage Fees
- Sewerage Facilities Charge

In addition to adjustments to the above charges, the BOS proposes to recover the outstanding FEMA/CalEMA commitments, and pursue monetization of existing water assets.

1. SSC Rate Adjustments

Proposed adjustments to the SSC include adjustments to the current rate to meet projected costs, linkage of the commercial percentage discharge value to water conservation policies, adjustments to provide funding for a revolving loan program, full billing of public agencies, and adjustment of charges to fund the low income subsidy program.

Annual Rate Adjustments

BOS evaluated five-, seven-, and ten-year rate adjustments as shown in Tables 6-8. The SSC rates are based on both flow and strength, with certain additional strength costs being recovered through the Quality Surcharge Fees as described later in the report. All rate scenarios meet the previously described service expectations beginning in FY 2011-12 unless noted. All rate scenarios include the 0.5% increment for the first five years to fund the revolving fund loan program.

Table 6: Proposed Five Year SSC Rate Adjustments

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
Charge/hcf	$3.27	$3.55	$3.85	$4.18	$4.54	$4.93
% Increase	0%	8.5%	8.5%	8.5%	8.5%	8.5%
Monthly SFR	$29.88	$32.42	$35.18	$38.17	$41.41	$44.93
$ Increase	$0.00	$2.54	$2.76	$2.99	$3.24	$3.52
The senior lien and total debt service coverage goals of 2.5x and 1.5x are not met in FY 2011-12.						

Table 7: Proposed Seven Year SSC Rate Adjustments

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
Charge/hcf	$3.27	$3.52	$3.78	$4.06	$4.36	$4.69	$5.02	$5.37
% Increase	0%	7.5%	7.5%	7.5%	7.5%	7.5%	7.0%	7.0%
Monthly SFR	$29.88	$32.12	$34.53	$37.12	$39.9	$42.89	$45.89	$49.10
$ Increase	$0.00	$2.24	$2.41	$2.59	$2.78	$2.99	$3.00	$3.21
The senior lien and total debt service coverage goals of 2.5x and 1.5x are not met in FY 2011-12.								

Table 8: Proposed Ten Year SSC Rate Adjustments

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Charge /hcf	$3.27	$3.45	$3.64	$3.95	$4.29	$4.65	$5.00	$5.38	$5.78	$6.21	$6.68
% Increase	0%	5.5%	5.5%	8.5%	8.5%	8.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Monthly SFR	$29.88	$31.52	$33.25	$36.08	$39.15	$42.09	$45.25	$48.64	$52.29	$56.21	$60.43
Monthly Increase	$0.00	$1.64	$1.73	$2.83	$3.07	$2.94	$3.16	$3.39	$3.65	$3.92	$4.22
The senior lien and total debt service coverage goals of 2.5x and 1.5x are not met in FY 2011-12 or 2012-13.											

Table 9 shows projections of the increases to SSCs based on a survey of national wastewater agencies released by the National Association of Clean Water Agencies (NACWA) in March 2011. This demonstrates that the proposed rate adjustments are reasonable in regards to agencies throughout the country, a majority of which are planning to adjust rates in each of the next 5 years.

Table 9: Projected National SSC Rate Adjustments

Year	Percentage Increase	**Monthly Increase**	% of Agencies with Approved/Planned Rate Adjustments
2011	6.5%	$2.29	77%
2012	7.4%	$2.70	65%
2013	7.4%	$3.06	59%
2014	7.4%	$3.27	52%
2015	6.5%	$3.11	47%

BOS is recommending the ten-year adjustment schedule shown in Table 8. The ten-year period reduces the annual adjustments, particularly in the next two years, and provides more certainty of future adjustments, which will benefit the CWP debt ratings. Even after these adjustments, the annual CWP SSC will still be less than the national averages shown in the NACWA survey, as shown in Table 10.

Table 10: Projected CWP Annual SSCs Compared the National Averages

Year	NACWA Survey Average Annual SSC	CWP Projected Annual SSC
2011	$401.81	$358.56
2012	$434.19	$378.24
2013	$470.91	$399.00
2014	$510.13	$432.96
2015	$547.44	$469.80

Sewer Lateral Rehabilitation and Septic System Abandonment Program Adjustment

In addition, BOS evaluated the funding required to initiate a revolving fund loan program for replacement or lining of sewer laterals and connections to the sewer and abandonment of septic tanks. An additional 0.5 percent increment for five years is included in the numbers shown in Tables 6-8. Using the recommendations in Table 8, the 0.5 percent increment will generate almost $36 million in the first five years to launch the program. Assuming an average loan amount of $15,000, this funding will allow approximately 2,400 loans to be made in the first five years. As the loans are repaid, the funds will be utilized for additional loans.

BOS will be preparing an implementation plan for this program after the public outreach occurs and feedback is obtained. The plan will include recommendations on the payback period for the loans and details on how the program will be administered.

Full Billing of LAUSD, Public Colleges and State Properties

In 1988, AB 1350 was codified as Government Code Section 54999 *et seq*. This placed limitations on capital fees that could be charged to certain public agencies, including State agencies, County offices of education, community college districts, the California State University system, and the University of California. At the time, it was unclear if this applied to the portion of the SSC that is used to fund capital projects. The Board of Public Works established a policy to only charge these agencies the O&M portion of the SSC. Approximately 2,600 customer accounts were impacted.

Subsequently, AB 2951 modified Government Code Section 54999 to more clearly define the types of capital fees that cannot be charged to these public agencies. The limitations described in this section apply to “capital facilities fees,” which are defined as either a capacity charge to recover the costs of facilities necessary to extend or establish new service to a public agency, or a connection fee to recover the costs of the physical facilities necessary to directly connect a public agency to a service. “Capital facilities fee” does not include any other rate, charge, or surcharge, or any capital component thereof. This language clarifies that the capital component of the SSC is not a capital facilities fee.

Government Code Section 54999.7 states that any public agency providing public utility service may impose a fee for any service provided to a public agency, so long as the fee is based on the same objective criteria and methodology applicable to comparable nonpublic users. The SSC rate structure for the City meets this criterion. Removing the current exemption provided to these agencies is expected to generate an additional $2.5 million in revenue annually and improve the fairness of the SSCs.

SSC Commercial Percentage Discharge Adjustment

The sewer service charge for commercial customers, including apartments with five units or more, is based on the assumption that on an annual average, 90 percent of the water delivered to the site is returned to the sewer. This figure was based on water use studies and has historically worked well for most commercial customers. Customers have the options to directly meter their sewage, install submeters to measure non-tributary water separately, or apply to BOS for a revised percentage discharge calculation if the 90 percent default calculation doesn't reflect their practices at their property.

Due to the water conservation measures implemented in the past few years, including watering restrictions and water shortage pricing, the 90 percent assumption is no longer valid. Customers who previously used 10 percent of their water for irrigation have successfully reduced that amount, but are now paying for less sewage than they actually discharge to the system. The recommendation is to allow BOS to adjust the 90 percent default based on water conservation policies implemented by the LADWP. When policies are in place to encourage or require reduced irrigation, the 90 percent would be increased. The new amount would be linked to the level of LADWP's water conservation as shown in Table 11.

Table 11: Linkage of Sewer Discharge to Water Conservation

Water Conservation Policies	Default Percentage Discharge for Commercial Customers
Normal **Conditions**	90%
Voluntary Conservation	91%
Watering Restrictions	92%
Water Shortage Pricing	93%
Additional conservation policies	94%

With the current water shortage pricing, increasing the default percentage discharge to 93 percent would increase revenues by $9 million per year.

SSC Low Income Subsidy/Surcharge Program Adjustment

The Clean Water Act requires all customers to be charged based on their proportionate use of the wastewater system. The only exception allowed is for low income residential customers. A low income account is currently defined as an account with 1-2 people with an income of $31,300. For every additional person at the residence, an additional $7,600 of income is allowed. The SWRCB, which must approve the City's wastewater rate structure, requires that this program must be open to everyone who qualifies – the program cannot cap the number of participants or limit it to a specific subgroup of low income customers. All subsidies that are provided through the discount must be recovered from other users of the system (the low income surcharge).

The current program provides a low income subsidy of 31 percent for the first nine hundred cubic feet (9 hcf or 6,732 gallons) of sewage every month. This amount is enough to cover the full discharge from most low income customers. All other customers pay a low income surcharge of 0.84 percent on their bills to fund this program. While this program was within $56,000 of being balanced in FY 2006-07, in FY 2009-10 $2.7 million of the subsidy was not recovered through the surcharge. There are two main reasons:

1. The numbers of customers receiving the low income subsidy has increased by 51 percent between September 2008 and February 2011 (from 53,089 to 80,056). This not only increases the amount of subsidy, but reduces the number of customers contributing to the surcharge. 17 percent of single family residential customers now receive low income subsidies.

2. The wastewater volume being assessed a surcharge has decreased. As the wastewater volume decreases, so does the SSC, so the 0.84 percent surcharge is applied to a lower base amount.

These two factors combined to decrease the surcharge revenue by $400,000 and increase the subsidy amount by $2.2 million. The gap is expected to grow to $2.8million by the end of FY 2010-11. In order to continue providing the current 31 percent subsidy, the low income surcharge will need to be increased to 1.42 percent.

In addition to this increase, BOS requests the authority to update the low income surcharge on an annual basis to ensure the program remains adequately funded. BOS recommends including this ability, up to a maximum of 2 percent, in the proposed Proposition 218 notification.

SWRCB policy also requires that eligibility for the low income subsidy be verified at least annually, which does not occur currently. BOS recommends moving this verification process to BOS so compliance with this requirement can be guaranteed. This can be done in conjunction with the verification that BOS is doing for the solid resources lifeline customers.

2. Quality Surcharge Fees (QSF)

The QSFs are tied to the strength component of the SSC and both need to be adjusted at the same time and for the same period. Potential adjustment amounts and schedules are shown in Tables 12-14 below.

Table 12: Proposed Five Year Quality Surcharge Fee Adjustments

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16
$/pound BOD	$0.349	$0.377	$0.407	$0.440	$0.475	$0.513
$/pound SS	$0.351	$0.379	$0.409	$0.442	$0.477	$0.515
% Increase	0%	8.0%	8.0%	8.0%	8.0%	8.0%

Table 13: Proposed Seven Year Quality Surcharge Fee Adjustments

	FY 10-11	FY 11-12	FY 12-13	FY 13-14	FY 14-15	FY 15-16	FY 16-17	FY 17-18
$/pound BOD	$0.349	$0.377	$0.407	$0.440	$0.475	$0.513	$0.535	$0.558
$/pound SS	$0.351	$0.379	$0.409	$0.442	$0.477	$0.515	$0.537	$0.560
% Increase	0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%

Table 14: Proposed Ten Year Quality Surcharge Fee Adjustments

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
$/pound BOD	$0.349	$0.366	$0.384	$0.415	$0.448	$0.484	$0.520	$0.559	$0.601	$0.646	$0.694
$/pound SS	$0.351	$0.369	$0.387	$0.418	$0.451	$0.487	$0.524	$0.563	$0.605	$0.650	$0.699
% Increase	0%	5.0%	5.0%	8.0%	8.0%	8.0%	7.5%	7.5%	7.5%	7.5%	7.5%

The increases match the ones proposed for the SSCs, less the 0.5 percent for the revolving fund loan program. BOS recommends using the ten year series of adjustments, similar to the SSCs.

3. Industrial Waste Fees for Service

While the QSF captures the costs to the City of treating high-strength wastewater, it does not fund the operation of the pretreatment program. BOS has a variety of fees to fund 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 and no longer provide adequate funding support for the program. It is recommended that these fees be increased by the same percentage as the SSCs, less the 0.5 percent that will fund the loan program. This will result in the fees shown in Table 15 below:

Table 15: Proposed Industrial Waste Fee Adjustments

Fee	Current ($/yr)	11-12 ($/yr)	12-13 ($/yr)	13-14 ($/yr)	14-15 ($/yr)	15-16 ($/yr)	16-17 ($/yr)	17-18 ($/yr)	18-19 ($/yr)	19-20 ($/yr)	20-21 ($/yr)
Permit Application	356	381	407	435	465	497	531	568	607	649	694
Inspection and Control											
Class 1	244	256	269	291	314	339	363	388	415	444	475
Class 2	488	512	538	581	628	678	725	776	830	888	951
Class 3	732	769	807	872	941	1,017	1,088	1,164	1,245	1,333	1,426
Class 4	976	1,025	1,076	1,162	1,255	1,356	1,450	1,552	1,661	1,777	1,901
Class 5	1,220	1,281	1,345	1,453	1,569	1,694	1,813	1,940	2,076	2,221	2,376
Class 12	2,928	3,074	3,228	3,486	3,765	4,067	4,351	4,656	4.982	5,330	5,703
Class 1D	49	51	54	58	63	68	73	78	83	89	95
Significant Industrial Users											
Group I	4,482	4,480	4,794	5,129	5,488	5,872	6,284	6,723	7,194	7,698	8,236
Group II	4,051	4,335	4,638	4,963	5,310	5,682	6,079	6,505	6,960	7,448	7,969
Group III	2,217	2,372	2,538	2,716	2,906	3,109	3,327	3,560	3,809	4,076	4,361
Group IV	3,463	3,705	3,965	4,242	4,539	4,857	5,197	5,561	5,950	6,367	6,812
Group V	2,514	2,690	2,878	3,080	3,295	3,526	3,773	4,037	4,320	4,622	4,945
Group VI	2,357	2,522	2,699	2,887	3,090	3,306	3,537	3,785	4,050	4,333	4,637
The differing fees for each classification represent the different amount of oversight required for customers.											

The BOS Industrial Waste Management Division also operates Septage Receiving Stations, which are locations where septage waste haulers can discharge septage pumped from septic tanks or portable toilets. The fees for this program recover the costs of permitting the septage haulers, operating the receiving stations, and providing treatment services for the septage. When the fees were set in 1998, Septage originating within the City was charged $0.0256/gallon while septage originating outside the City was charged $0.0496/gallon. Since the City does not incur any additional costs for treating septage outside of the City, this report recommends revising the septage fees so the fees are the same

regardless of the septage origin. Table 16 shows the proposed adjustments to bring this program to full cost recovery in FY 2011-12, with annual adjustments thereafter to keep the program fully funded.

Table 16: Proposed Septage Fee Adjustments

	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21
Septage ($/gallon)	0.0496	0.0528	0.0542	0.0557	0.0572	0.0587	0.0603	0.0612	0.0621	0.0631	0.0640
Permit Fee ($/year)	2,000	2,500	3,000	3,500	4,000	4,500	5,000	5,500	6,000	6,500	7,000

4. Sewerage Facilities Charges

SFCs recover cost associated with the capacity provided to new system users from the new connections. As previously discussed, the SFC is based on the value of the CWP assets associated with the flow, BOD and SS cost centers. Since 1999, approximately 54 percent of the wastewater CIP budget has been allocated to the rehabilitation, replacement and renewal of the collection system assets to meet the legal requirements and mandates of the CSSA. Few projects have been implemented to expand system capacity.

However, effective July 1, 2004, the City changed the estimated life of the collection system sewer and appurtenances assets from 50 years to 80 years. The change has resulted in a much slower depreciation rate of sewer assets as compared to wastewater treatment plants assets with an average estimated life of 30 years. The relatively slower rate of depreciation of the collection system assets combined with the higher CIP budget allocation to the acquisition of collection system assets in the past 10 years have resulted in a significant increase in the flow parameter of the SFC unit rates. The reduction of the unit rates of the BOD and SS components of the SFC unit rates, shown below, are due to the wastewater treatment plant assets comprising a smaller percentage of the total assets.

Based on the impacts to flow and load parameters, the unit costs have been updated. The proposed unit costs for the SFC are as presented in Table 17.

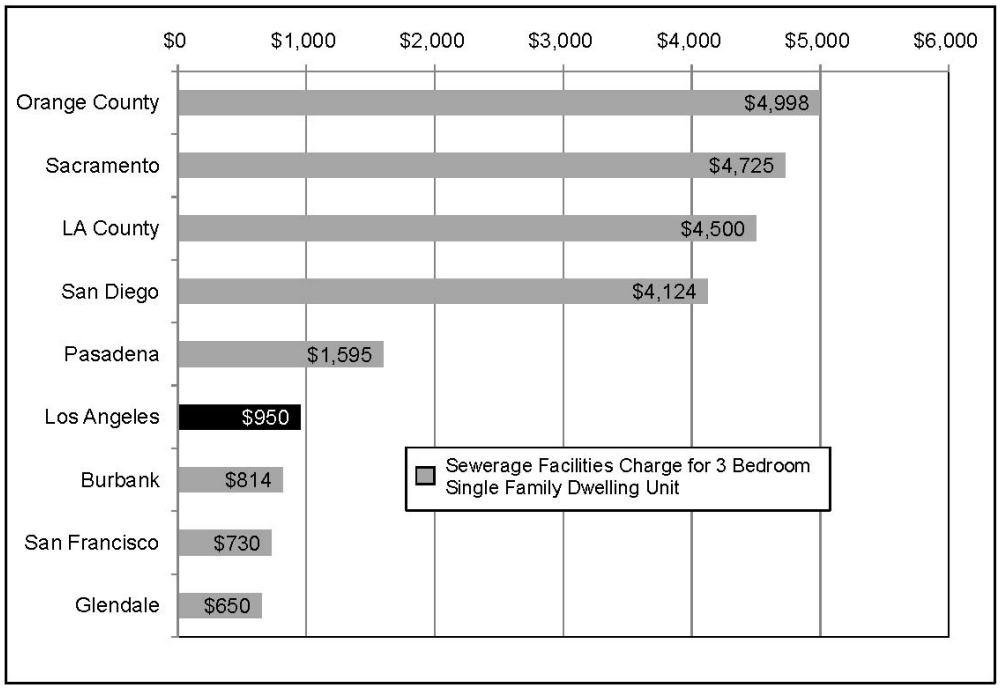
Table 17: Proposed Sewerage Facilities Charge Adjustments

Parameter	Current Unit Cost	Proposed Unit Cost
Flow	$262/100 gallons per day	$344/100 gallons per day
BOD	$188/pounds per day	$159/pounds per day
SS	$171/pounds per day	$147/pounds per day

Based on these unit costs and the typical single family residential 3 bedroom household flow and load parameters (230 gallons of flow per day, 265 milligrams per liter (mg/L) of BOD, and 275 mg/L of SS), the proposed SFC is $950, a 27 percent increase from the existing $747 rate, consistent with the increase of system equity since the SFCs were last modified in 1996.

Figure 15 provides a comparison of the SFCs for other California wastewater agencies. Even with the proposed increase, the City's SFC would continue to remain significantly lower than that of neighboring agencies.

Figure 15: Single Family Dwelling Unit SFC Comparison for California Wastewater Agencies



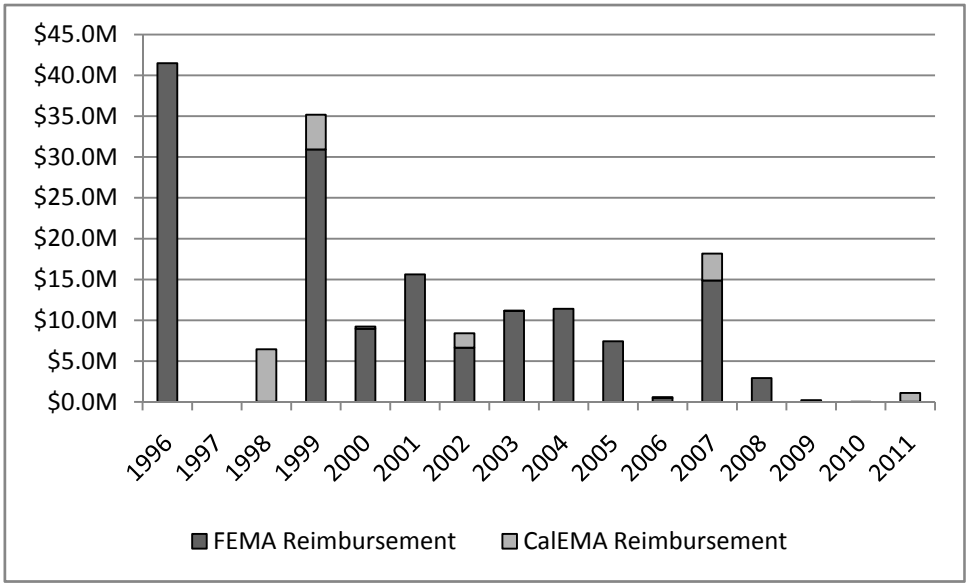
5. FEMA/CalEMA Reimbursement

As a result of the Northridge earthquake, the CWP incurred $211.2 million in rehabilitation expenditures that are eligible for reimbursement from FEMA or CalEMA. Of this, only $165.9 million in reimbursements have been received by the SCM Fund. The remaining $45.3 million is a combination of amounts owed by FEMA and CalEMA ($36.1 million) and $10.6 million owed to the SCM FUND from the General Fund.

The first priority with this reimbursement is to obtain the remaining $35 million due from FEMA and CalEMA. As shown in Figure 16, for many years the City received regular reimbursements. In 2008, CalEMA began holding the remaining reimbursement as a form of retention to ensure that the remaining sewer rehabilitation projects were completed. All of the construction work has been completed with the exception of the Secondary Sewer Rehabilitation Program H26 A-D sewer project, which was added to use the funding under-runs created by projects being completed at lower costs than projected. All cost information has been submitted to the CAO, but the total amount of reimbursement

received during the past three years has only been $1.3 million. Aggressively pursuing these funds owed to the City will help offset future SSC rate adjustments. The SSC adjustments presented in this report are based on the assumption that all reimbursements are received by FY 2013-14. If this does not occur, additional rate adjustments will be required.

Figure 16: Graph of FEMA reimbursement over time



The second priority is obtaining reimbursement amount that was deobligated after funds had been advanced to certain General Funded departments in the City. Due to the extreme impacts the City experienced from the Northridge Earthquake, FEMA provided $75 million to the City as an advance rather than through reimbursement. A condition of this advance was that the City would file the appropriate paperwork so FEMA could account for the dispersal of these funds. Unfortunately, this did not occur for $35.7 million of the advance, even though the funds were spent on eligible activities. In 1999, FEMA notified the City that this $35.7 million portion of the advance would be deobligated, meaning that an equivalent amount of future reimbursement would not occur to offset the advanced amounts that were not correctly documented. Since FEMA views the entire City as one entity, for the convenience of their accounting, the entire deobligation was taken against the Department of Public Works rather than the departments which had received the advances. The Department of Public Works was not notified of this deobligation until 2009 and continued to carry a $10.3 million portion of the deobligation on the SCM Fund books as an Intergovernmental Receivable. This was corrected to be shown as an Advance to Other Funds in the SCM financial statements for FY 2008-09 to recognize that the amount owed to the SCM Fund was due from the General Fund rather than from outside of the City. This amount cannot be carried indefinitely, so a plan must be developed for the SCM Fund to regain the funds that the City received based on properly documented CWP earthquake recovery work.

The proposed increases to the user fees contained in this report assume that this reimbursement is received by the end of FY 2013-14. If that does not occur, additional rate adjustments or cuts to the CIP will be required.

6. Water Assets

The CWP has groundwater assets associated with its ownership of the Green Acres Farm in Kern County. While no water sales have occurred to date, BOS will continue to evaluate the feasibility of monetizing these assets to help offset the need for future rate adjustments.

C. Additional Revenues

Table 18 shows the additional revenues should all of the recommendations in this report be implemented. This revenue would allow approximately $200 million to be added to the annual capital program, reducing the replacement cycle from the current 168 years to 68 years.

Table 18: Additional Revenue Projections

	Additional Revenues ($ millions)									
Fee	**11-12**	**12-13**	**13-14**	**14-15**	**15-16**	**16-17**	**17-18**	**18-19**	**19-20**	**20-21**
Sewer Service Charge	15.6	62.0	105.8	155.7	210.4	264.9	312.7	318.8	320.1	321.6
Quality Surcharge Fee	0.2	0.9	1.7	2.6	3.6	4.5	5.6	5.5	5.5	5.5
Industrial Waste & Septage Fees	0.5	1.1	1.8	2.6	3.4	4.2	5.1	6.0	7.1	8.1
Sewerage Facilities Charges	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
FEMA/CalEMA Reimbursement	20.0	16.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	37.4	81.1	119.4	161.9	218.3	274.7	324.4	331.3	333.7	336.3
10-year total from rates	$2.174 billion				10-year total from FEMA				$45 million	

D. Summary of Next Steps

The revenue issues discussed in this report have different approval timelines and processes. Table 19 below outlines approval processes to implement the recommendations in this section. While not all of the recommendations required the Proposition 218 process, it is recommended that all of the adjustments have the same effective date of January 1, 2012. A summary of the projected activities and approval timeline for the proposed rate adjustments is shown in Table 20.

Table 19: Summary of the Next Steps

Recommendation	Current Council Action	Future Actions
Increase SSC annually for ten years Increase SSC by 0.5% for five years to fund customer loan program Authorize BOS to adjust the 90% discharge assumption for commercial properties based on water conservation measures Adjust the low income surcharge to fully fund the low income subsidy Adjust SSC of certain governmental agencies to include the capital component of the SSC, the same as all other customers Increase QSF annually for ten years	1. Authorize BOS to print and distribute Prop 218 notices to all affected customers listing a public hearing date at least 45 days in the future. 2. Authorize BOS to begin outreach efforts to the neighborhood councils, community groups and other stakeholders of the CWP. 3. Direct City Attorney to finalize ordinance for approval after the public hearing.	1. BOS to issue Prop 218 notices. 2. BOS to perform outreach. 3. BOS to provide information to LAHD so they can determine if there will be any rent stabilization actions. 4. BOS to develop loan program based on stakeholder input. 5. Hold public hearing at City Council. 6. Publish ordinance.
Modify the Industrial Waste Fees for increased cost recovery	1. Direct City Attorney to finalize ordinance for future approval.	1. Approve ordinance.
Modify the Septage Fees for full cost recovery	1. Direct City Attorney to finalize ordinance for future approval.	1. Approve ordinance.
Modify Sewerage Facilities Charge	1. Direct City Attorney to finalize ordinance for future approval.	1. Approve ordinance.
Aggressively pursue FEMA reimbursement for the Northridge Earthquake		
Pursue monetization of Kern County water assets		

Table 20: Projected Approval Timeline

Activity	Start	Early Finish
BOS submits report to Mayor & City Council		3/25/2011
N.C. and Stakeholder Outreach	3/28/2011	7/5/2011
Authorization for Prop 218 notification		
Consideration & Approval by EQWM Committee	3/25/2011	4/5/2011
Consideration & Approval by Budget & Finance Committee	4/6/2011	4/18/2011
Consideration & Approval by City Council	4/19/2011	4/26/2011
Mayor's Concurrence	4/27/2011	4/29/2011
Print & Mail Prop 218 Notifications	5/2/2011	5/29/2011
Public Hearing @ City Council (after 45 days)	7/13/2011	7/13/2011
2nd Hearing if needed	7/13/2011	7/20/2011
Mayor's Concurrence	7/20/2011	7/22/2011
Post Ordinance	7/22/2011	
30 Days Public Review	7/22/2011	8/21/2011
Ordinance for all rate adjustments in effect	1/1/2012	

SCHEDULE 14

SEWER CONSTRUCTION AND MAINTENANCE FUND

The Council shall designate by ordinance those monies which shall be deposited on a regular basis into the Fund in accordance with Section 64.19.2 of the Los Angeles Municipal Code. Monies deposited into the Fund shall be expended only for sewer and sewage-related purposes including but not limited to industrial waste control, water reclamation purposes, funding of the Wastewater System Revenue Bond Funds created by Section 5.168.1 of the Los Angeles Administrative Code and funding of the Sewer Operation and Maintenance Fund and the Sewer Capital Fund as provided in Sections 64.19.3 and 64.19.4 of the Municipal Code. Expenditures shall be made from the Fund as provided in the Budget or by Council resolution unless provided otherwise by ordinance.

Actual 2008-09	Estimated 2009-10		Budget 2010-11
		REVENUE	
$ 304,224,894	$ 307,779,717	Cash Balance, July 1	$ 257,975,717
		Less:	
		Restricted Funds*	$ 101,333,454
$ --	$ --	Prior Year's Unexpended Appropriations	$ 81,716,000
$ 304,224,894	$ 307,779,717	Balance Available, July 1	$ 74,926,263
		Receipts:	
480,839,851	490,604,000	Sewer Service Charges	487,800,000
17,515,933	16,596,000	Industrial Waste Quality Surcharge	16,596,000
8,296,347	4,303,000	Sewerage Facilities Charge	4,303,000
210,598	--	FEMA/OES Reimbursements	10,000,000
		Sewerage Disposal Contracts:	
12,886,798	13,442,000	Operating and Maintenance Charges	13,442,000
13,410,650	14,600,000	Capital Contribution	13,500,000
1,413,811	5,464,000	Miscellaneous	2,624,000
6,458,977	6,697,000	Interest on Idle Funds	6,697,000
223,809	235,000	Repayment of loans	235,000
3,390,585	716,000	Revenue from Green Acres Farm	716,000
2,680,273	1,176,000	Reimbursements from other Departments	1,176,000
182,811,911	100,000,000	Additional Revenue Debt	**90,100,962**
$ 1,034,364,437	$ 961,612,717	Total Revenue	$ 722,116,225
EXPENDITURES		**APPROPRIATIONS**	
		Sewer Operation and Maintenance	
$ --	$ --	Building and Safety	--
208,365	216,000	City Administrative Officer	215,792
209,184	210,000	City Attorney	220,883
--	--	Emergency Management	52,452
281,803	326,000	Environmental Affairs	--
130,252	129,000	Finance	13,661
5,771,736	4,651,000	General Services	**4,979,289**
304,945	267,000	Information Technology Agency	**317,485**
--	--	Mayor	30,045
333,330	354,000	Personnel	245,441
103,834	125,000	Planning	156,567
		Public Works:	
1,685,942	1,401,000	Board Office	1,464,819
230,857		Contract Administration	--
101,951,031	92,239,000	Sanitation	103,301,159
17,788	--	Street Services	--
437,767	449,000	Capital Finance Administration Fund	419,546
328,432	240,000	Liability Claims	240,000
		Unappropriated Balance	2,001,700
		Wastewater Special Purpose Fund:	
52,852,985	48,760,000	Reimbursement of General Fund Costs	**44,473,026**
		Expense and Equipment:	
10,353	--	Board Office	--
1,880,139	2,420,000	General Services	1,460,050
22,452,150	10,000,000	Sanitation - project related	12,469,000
61,946,892	71,175,000	Sanitation - operation related	74,478,787
20,646,148	23,647,000	Utilities	23,880,785
2,980,800	2,981,000	DWP Billing/Collection Fee	2,980,800
--	--	O&M Reserve	**34,106,716**
10,000	--	Household Hazardous Waste Fund	--
--	--	Insurance Reserve	**3,000,000**
403,994	1,000,000	Sewer Service Charge Refunds	1,000,000
$ 275,178,727	$ 260,590,000	Subtotal	311,508,003

SCHEDULE 14

SEWER CONSTRUCTION AND MAINTENANCE FUND (Continued)

Actual 2008-09	Estimated 2009-10		Budget 2010-11
		Bond Redemption and Interest	
$ 13,605,482	$ 13,605,000	Repayment of State Revolving Fund Loans	$ 13,605,482
5,809,523	--	Series 1997-A	--
14,564,768	12,586,000	Series 1998-A and B	
2,911,249	1,891,000	Series 1998-C	1,889,875
8,879,797	6,573,000	Series 1999-A	
--	--	Series 2001 A-D	--
5,360,850	5,361,000	Series 2002-A	5,360,850
9,943,131	9,943,000	Series 2003-A	9,943,131
17,506,460	17,506,000	Series 2003-A Subordinate	19,726,460
12,603,538	12,569,000	Series 2003-B	12,493,563
29,387,200	29,285,000	Series 2003-B Subordinate	21,690,250
19,501,987	19,508,000	Series 2005-A	24,545,588
7,227,373	--	Series 2006 A-D	--
6,229,128	12,100,000	Series 2008 A-H	15,095,000
--	32,396,000	Series 2009-A	46,369,219
4,206,561	2,828,000	Commercial Paper	8,750,000
$ 157,737,047	$ 176,151,000	Subtotal	$ 179,469,418
		Sewer Capital**	
$ 280,788	$ 299,000	City Administrative Officer	299,440
235,226	235,000	City Attorney	246,925
233,801	263,000	Controller	293,663
--	--	Environmental Affairs	--
1,410,313	1,385,000	General Services	1,409,074
206,153	84,000	Information Technology Agency	61,904
--	--	Personnel	--
		Public Works:	
1,230,651	1,359,000	Board Office	1,179,524
8,119,767	8,133,000	Contract Administration	8,345,982
33,998,991	36,440,000	Engineering	35,291,681
2,781,068	2,220,000	Sanitation	2,845,371
107,590	131,000	Street Lighting	180,915
93,176	94,000	Transportation	96,136
409,894	472,000	Treasurer	395,177
1,071,773	999,000	Capital Finance Administration Fund	1,027,164
212,796,521	185,000,000	Capital Improvement Expenditure Program	145,500,000
74,000	--	General City Purposes	--
		Unappropriated Balance	1,705,200
		Wastewater Special Purpose Fund:	
19,704,194	18,719,000	Reimbursement of General Fund Costs	20,145,917
		Expense and Equipment:	
--	--	Board Office	--
60,412	204,000	Contract Administration	204,166
391,467	--	Controller	--
2,943,925	2,515,000	General Services	2,478,125
1,638,911	1,591,000	Engineering	1,379,476
2,605,730	3,653,000	Sanitation	3,652,964
3,206,940	3,100,000	Bond Issuance Costs	4,400,000
67,655	--	Arbitrage Rebate	--
--	--	Insurance and Bonds Premium Fund	--
$ 293,668,946	$ 266,896,000	Subtotal	$ 231,138,804
$ 726,584,720	$ 703,637,000	Total Appropriations	$ 722,116,225
$ 307,779,717	$ 257,975,717	Ending Balance, June 30	$ --

*Restricted Balance includes debt service reserve fund, emergency fund, and various bond rebate funds that are not available to fund appropriations.
**Capital related expenditures may be made from the Sewer Capital Fund or from any Series Wastewater System Revenue Bonds Construction Fund.

Attachment B – SCM Fund Sources of Revenue

1. Sewer Service Charge (SSC)

The SSC is the largest source of funds for the CWP, providing 88 percent of the annual revenue in FY 2009-10. All wastewater agencies are required to recover the costs of operations, maintenance, and replacement (OM&R) from users of the system through a user charge system based on actual (or estimated) use. User charges must recover the cost of OM&R from users based on their proportionate contribution to the total wastewater loading from all users. The SWRCB must approve all rate structures for wastewater systems. In FY 2009-10, the SSCs generated $478 million in revenue.

2. Quality Surcharge Fees (QSF)

The SSC fully recovers costs from customers who discharge "domestic strength" sewage, which is sewage of the strength that would be discharged from a typical residence. Customers who discharge stronger sewage are required to obtain an industrial waste permit and to pay QSFs for amounts above domestic strength.

The City uses two measures of strength; Biochemical Oxygen Demand (BOD) and Suspended Solids (SS). The current charges are:

$0.349/pound BOD for anything above 265 mg/L

$0.351/pound SS for anything above 275 mg/L

In FY 2009-10, the QSFs generated $9 million in revenue.

3. Contract Agency Fees

Los Angeles provides wastewater service to 29 agencies, located outside the City's limits pursuant to contracts. The agencies are charged for each year's service based on the costs of providing the service incurred in that year. For example, the agencies' service charges include their shares of the costs of capital projects incurred in each year, regardless of whether the City pays for the projects from cash on hand or from the proceeds of bonds. The City's principal and interest payments on the bonds are not included in the agencies' charges. In contrast, the City's internal customers pay service charges that do not include capital costs funded from bonds, but do include the principal and interest. This stabilizes the costs paid by internal customers from year to year, while the amounts paid by the agencies can vary greatly if the CWP capital costs change annually

The agencies' service charges have decreased recently because the City has greatly reduced its capital expenditures for lack of funds. The costs of service to the internal customers, on the other hand, have not decreased, but are continuing to increase. This is because the internal charges include the principal and interest on past bonds, which have not decreased. Despite the differences in how the rates are calculated, the agencies are paying for their proportional use of the system. While a rate adjustment to internal customers does not automatically trigger an increase to the contract agencies, since the proposed internal rate adjustment will be used to increase the capital expenditures, it will lead to higher agency charges. In FY 2009-10, the contract agency fees generated $31 million in revenue.

4. Industrial Waste Fees for Service

While the QSF described above recovers the cost of providing treatment of high-strength wastewater, it does recover the costs of administering the industrial waste pretreatment program. BOS also administers Septage Receiving Stations, which have associated fees to recover the costs of treating the septage and of administering the program. In FY 2009-10, the combined industrial waste fees generated $6 million in revenue.

5. Sewerage Facilities Charges (SFCs)

The Sewerage Facilities Charge (SFC) is designed to recover the cost of wastewater system capacity required by new sewer connections and increases in capacity by current system users. Since all customers do not exert the same demands on the wastewater system, flow and wastewater strength characteristics of typical facilities or Sewerage Generation Factors (SGFs) are applied to common SFC unit costs for rates of flow and wastewater strength to determine the total SFC for each new service request. In FY 2009-10, the SFCs generated $4 million in revenue.

SFC Background

Prior to the implementation of SFCs in 1970, the City partially recovered capital expansion costs through an outlet sewer charge levied at the rate of $400 per acre. This charge was applied uniformly to all new connections regardless of the type of development or level of capacity requirements. Therefore, low density single family developments incurred the same charge as high rise apartment buildings or industrial complexes even though the latter developments had much higher sewer system and treatment plant capacity requirements. The amount of revenue generated by the outlet sewer charge was insufficient to finance the additional capacity and was supplemented by the use of funds received through the issuance of general obligation bonds.

The first SFC was approved on March 30, 1970, by ordinances 140189 and 140190, and subsequently enacted on May 11, 1970. The development of the original SFC of $30 per 100 gallons per day (gpd) of average flow was based on a continuation of the $400 per acre outlet sewer charge. The resulting unit charge was determined by assuming 3.9 people for a single family dwelling, an average daily sewage discharge of 85 gallons per capita per day (gpcd) or 331 (3.9 x 85) gpd of average flow per single family dwelling (SFD), and four single family lots per acre.

The sewerage facilities charges have significantly changed since their 1970 implementation. The charges were initially based on the system buy-in methodology, which is an amount per connection equal to "equity" in the system attributable to existing customers, and peak rates of flow from 1970 through 1988. By 1988, the City was faced with possible future capacity limitations in the Hyperion system so Ordinance 163565 was adopted in May 1988 to impose certain building permit and flow limitations in order to reduce increases in wastewater flow discharged to the Hyperion system. To maximize revenue generating potential and provide a price incentive to potentially reduce the increase in required capacity, the City adopted the incremental cost-pricing approach, which is the marginal or incremental cost of system expansion associated with new customer growth. This approach combined with a switch from peak flows to average wastewater flows was used from June 1989 through half of 1996. At that time the City converted back to the system buy-in methodology but continued to base the new charges on average flows. In addition, recognition was given to differences in wastewater strengths through application of SFC rates for biochemical oxygen demand (BOD) and suspended solids (SS).

1. EXECUTIVE SUMMARY

On behalf of the Controller's Office, the Matrix Consulting Group has completed a performance audit of the City's Wastewater Collection Systems. The primary objective of the audit was to evaluate whether the City of Los Angeles has an efficient and effective process to maintain and improve the City's infrastructure for wastewater collections and conveyance, to identify opportunities for improvement, and to make recommendations accordingly.

The audit was performed in accordance with Generally Accepted Government Auditing Standards and covered the activities from Fiscal Year 2000-01 to August 2008. Fieldwork was conducted between August and October 2008.

BACKGROUND

The City operates and maintains the largest wastewater collection system in the United States that includes:

- More than 6,500 miles of sewers that convey about 550 million gallons of sewage per day from homes and businesses;
- Four wastewater treatment and water reclamation plants that remove potential pollutants to protect river and marine environments and the public's health;
- Twenty-six primary sewer drainage basins and two hundred twenty secondary sewer basins that convey sewage to the wastewater treatment and water reclamation plants; and
- One hundred fifty three thousand maintenance holes providing access to the sewer mains for maintenance and forty four sewage pump stations that pump sewage from a low elevation to a high elevation.

The Department of Public Works, Bureau of Sanitation (Sanitation), through its Wastewater Collection Systems Division (Wastewater Division), maintains and repairs the City's expansive wastewater collection system. More than half of the system is over 50 years old and requires the City's vigilance in inspecting and assessing the condition of the system and to ensure the necessary upgrades, rehabilitation and repairs are made.

In December 2006, Sanitation developed a ten-year capital improvement program for the collection system that is expected to cost $3.4 billion.[1] The improvements will address projected increases in wastewater flows, capacity issues and the aging

[1] Wastewater Capital Improvement Program Project Descriptions and 10-Year Expenditure Plan, FY 2007-08 – FY 2016-17

infrastructure. The Wastewater Engineering Services Division, within Sanitation, assists in preparing sewer plans to ensure the wastewater collection system meets the City's needs.

The 2008-09 approved budget for the maintenance and operations of wastewater facilities is almost $259 million which includes the wastewater collections system and water treatment plants. The majority of the costs for operating, maintaining and improving the City's sewer system are paid through monthly sewer service charges to residents and businesses. According to Sanitation management, the typical single family residential monthly sewer service charge is about $30. There are over 400 positions assigned to the wastewater planning, operation and maintenance divisions.

COLLECTION SYSTEM SETTLEMENT AGREEMENT

In the late 1990s, several communities in South Los Angeles and Eagle Rock suffered significant sewer overflows during unusually heavy rainstorms. In response to these spills, the Los Angeles Regional Water Quality Control Board (Regional Control Board) issued a Cease and Desist Order requiring the City to construct several new sewer lines to prevent additional wet weather overflows. During the same time period, the Santa Monica Baykeeper filed a Federal lawsuit against the City asking for injunctive relief due to the sewer overflows. In January 2001, the U.S. Environmental Protection Agency (EPA), the Regional Control Board and a number of community groups representing residents in South Los Angeles joined the Baykeeper in its lawsuit against the City. On October 29, 2004, the Plaintiffs (EPA, Regional Control Board, South Los Angeles community groups and Baykeeper) and the City entered into a Collection System Settlement Agreement (Agreement) to resolve the pending consolidated litigation.

The Agreement sets out a program that the City must implement to reduce sanitary sewer overflows (overflows) through sewer cleaning, upgrades, and repairs, and processes to investigate, resolve, and mitigate sewer odors to the maximum extent practicable. The Agreement is in effect for ten years – from July 1, 2004 through June 30, 2014. Sanitation has estimated that compliance with the Agreement will cost the City an estimated $2.3 billion. The Agreement has 127 deliverables and defines the specific maintenance, repair / rehabilitation, and new construction projects with schedules for their completion.

SUMMARY OF RESULTS

Overall, we found that Sanitation has adequately planned for its infrastructure needs to serve the City's wastewater demands and to comply with the Agreement. The ten-year capital improvement plan for the wastewater system, adopted in December 2006, addresses the facilities, upgrades, programs and strategies necessary to move the City's sewage from homes and businesses through the primary and secondary sewer drainage basins to the wastewater treatment and water reclamation plants. We found that Sanitation has been extremely effective in reducing sanitary sewer overflows over

the past eight years, and delivers a high level of service in the maintenance, inspection, and repair of the sanitary sewer system.

However, improvements can be made to ensure that primary and secondary sewer drainage basin master plans are developed by more effectively using computer modeling to minimize risk of future overflows and by better coordination of planning for the entire sewer system. Specifically, we found that the development of secondary sewer drainage basin master plans occurred without the benefit of a computer model to simulate the hydraulic conditions in the secondary basins. The computer model enables an evaluation of the capacity of the sanitary sewer system, how the system would react under various scenarios, and areas where improvements may be necessary. The model also serves as a tool in to identify the future infrastructure required to meet the build-out demands. This computer model has been used only in the development of master plans for the primary sewer drainage basins, despite that 98% of the overflows occurred during the prior two Fiscal Years in the secondary sewer basins. The sanitary sewer system was not analyzed or planned as one complete system (primary and secondary); rather, two separate engineering sections separately prepare primary and secondary sewer drainage system master plans with limited integration between the two sections. This can potentially result in a secondary sewer drainage basin overloading during wet weather events at the connection points between the primary and secondary sewer basins as a result of this limited integration.

Additionally, we noted that workload, resources and staffing could be more effectively managed to ensure their optimal utilization in the maintenance of the sanitary sewer system. The productivity of Wastewater Division staff does not consistently meet its own guidelines, the equipment used by Wastewater Division staff in the maintenance of the sanitary sewer system experiences significant downtime reducing work output, Wastewater Division is not evaluating the high levels of service for maintenance and inspection of the sanitary sewer system to determine whether these levels of service continue to be necessary, and the Wastewater Division lacks an effective computerized maintenance management system to manage workload, resources and staffing. Lastly, while Sanitation has made significant strides in addressing the requirements of the Agreement, delays have occurred in implementing some permanent odor control measures.

KEY FINDINGS

- **Sanitation can more effectively enhance the integration of master plans for the primary and secondary sewer drainage basins and reduce the likelihood of sanitary sewer overflows.**

  Sanitation categorizes the sanitary sewer collection system as primary or secondary based upon the size of the mains. Separate master plans are prepared for each of the primary and secondary sewer drainage basins by two separate engineering sections. Although the plans for the primary sewer system will be updated using a computer model and will consider peak wet weather flow

information, Sanitation does not intend to utilize this computer model in the preparation of master plans for the secondary sewer drainage basins. This can potentially result in a secondary sewer drainage basin overloading during wet weather events at the connection points between primary and secondary sewer drainage basins.

Sanitation does not believe the potential results of the use of the computer model in the development of secondary sewer master plans merits the significant effort that would be required for the analysis. However, we noted that almost all (98%) of the overflows in Fiscal Years 2006-07 and 2007-08 occurred in the secondary sewer system.

- **Once the master plans for the primary drainage basins have been updated for peak wet weather flow data and master plans completed for the high priority secondary sewer drainage basins, the frequency of further updates of these master plans should be evaluated to ensure cost effectiveness.**

  We noted the City spends a significant amount of resources, including City staff and consulting engineers to update master plans for primary and secondary drainage basins. For example, ten engineers and engineering consultants are responsible for the preparation of master plans for secondary sewer drainage basins. Once the master plans are initially completed or updated for peak wet weather flow data, Sanitation intended to continuously update these plans, rather than relying on the plans for ten to fifteen years as typical with other sanitation agencies. This practice is unnecessary and is not considered an efficient use of resources, especially considering the City's current fiscal constraints.

- **Sanitation spends about $1.1 million annually to uncover maintenance holes that are paved over by the Bureau of Street Services. Paving over the maintenance holes prevents the access to mains by the maintenance crews and possibly impedes their ability to effectively respond to overflows.**

  Maintenance holes are used to access the City's sewer system and are generally located in the City's streets. When repaving the City's streets, the Bureau of Street Services (Street Services) paves over some of the maintenance holes, preventing direct access to the sewer mains by Wastewater Division maintenance crews. When streets are newly paved, these manholes are indistinguishable from the rest of the street and are below the street surface. Standard work practices in the public sector are to uncover maintenance holes and raise the manhole to the street level as part of the street paving process. However, Sanitation uses a private contractor to locate, uncover and raise some of the City's manholes. We noted that the median timeframe to uncover and raise manholes is 36 calendar days from the date requested, but we noted a number of instances in which the maintenance holes were paved over for three to four years before being uncovered. On an annual basis, over 2,300 manholes are

uncovered and raised for a cost of over $1.1 million (or not less than $390/maintenance hole).

- **Sanitation lacks an effective computerized maintenance management system to enable Wastewater Division management to effectively control workload, resources and staffing in the maintenance and the repair of the sanitary sewer system.**

  The Wastewater Division uses the Enterprise Maintenance Planning and Control (Management Systems) software as an asset management and maintenance system. The Division utilizes Management Systems to manage work through the issuance of work orders to their crews, track warehouse parts, and enable maintenance related purchases. However, the Management Systems is limited in its ability to enable the Wastewater Division to manage workload, resources and staffing, and evaluate service levels in the maintenance and repair of the sanitary sewer system.

- **Sewer maintenance equipment is not always available due to excessive use and high downtime, reducing work output by the Wastewater Division staff.**

  A review of equipment availability for the use of the Wastewater Division maintenance staff for maintaining the wastewater collection system indicates that a significant proportion of the equipment is down – in the fleet repair shop – for significant periods of time. For example, for one day in June 2008, we noted the following equipment was in the repair shop: nine of fourteen hydroflushers, one of the seventeen rodders, and four of the thirteen cleaner combo's or almost one-third of the cleaning equipment. As another example, the only two hydroflushers (used to clean sewers) assigned to yard 371 were unavailable on June 2, 2008, and were still unavailable on June 26, 2008. Some crews are "hot bunking" equipment – using the same equipment in the same day for the day shift and the swing shift. The work output of crews and the productivity of crews assigned to the maintenance and repair of the wastewater collection system decreased as a result of the lack of equipment. The equipment is worn out more quickly as a result of the levels of utilization, and this does not reflect typical practices in other sanitation agencies.

- **The number of priority sewer locations, or "hot spots" is high and needs to be reevaluated on an ongoing basis to ensure appropriate cleaning frequency and effective use of resources.**

  There are approximately 35,000 "hot spots" in the wastewater collection system. "Hot spots" receive a higher and frequent level of service than other sanitary wastewater collection mains. "Hot spots" are added anytime there is an overflow or when a maintenance crew believes there are circumstances that would suggest more frequent cleaning is necessary such as roots, debris, grease, etc.

However, hot spots are not evaluated to determine whether the problem has been abated, and the frequency of cleaning can be reduced or the location can be removed from the "hot spot" list altogether. As a consequence, the number of "hot spots" has continued to grow over the past eight years, increasing the maintenance and workload demands as well as staffing requirements. "Hot spots" that may no longer be a problem will continue to receive a higher level of service when it is no longer necessary.

- **The productivity of the Wastewater Division staff in the maintenance and repair of the wastewater collection system is lower than other sanitation agencies. In addition, the Wastewater Division staff in the maintenance and repair of the wastewater collection system does not meet the Wastewater Division's own work output guidelines resulting in some instances of lower work output.**

  We reviewed work activity reports and noted that maintenance crew productivity is inconsistent and does not meet benchmarks or Division output goals. For example, for one crew, the daily productivity ranged from a low of 620 linear feet of main sewer lines cleaned per crew day to a high of 5,358 linear feet of main sewer lines cleaned per crew day. Further, based on work activity reports for July and August 2008 for all of the maintenance crews, we determined an average of 2,731 linear feet of sewers were cleaned per crew day. Maintenance crews should clean between 3,500 to 4,000 linear feet of mains. Though Sanitation maintenance crews are required to perform additional quality assessment steps, these quality guidelines have been considered in the Wastewater Division work output goals, e.g., the output goal for high velocity cleaning is 3,000 linear feet per crew day.

  A higher level of staffing is required to maintain necessary levels of service when maintenance crews do not meet the Wastewater Division's work output goals. Limitations of the Management Systems prohibit identifying specific reasons for lower output.

- **The levels of services for maintenance of the wastewater collection utilities are high relative to other sanitation agencies and exceed that required by the Agreement resulting in higher costs for Wastewater Division maintenance and operations.**

  Under the Agreement, the City must complete specified levels of cleaning and maintenance. The intent of setting specific cleaning and maintenance levels was to ultimately reduce the number of overflows. The number of overflows has decreased from 687 in fiscal year 2000-01 to 200 in fiscal year 2007-08. Over the past three fiscal years, the number of overflows has largely remained constant at about 200 overflows per year. However, the number of overflows per 100 miles of mains in Los Angeles is 43% below the median for participants that serve a population in excess of 500,000 based upon a survey conducted by the

American Water Works Association.

During this time, Sanitation has exceeded the Agreement's minimum requirement for cleaning sewer mains, using CCTV technology to inspect sewers, and applying root chemical treatment to inhibit root re-growth and intrusion in sewer mains. For example, in Fiscal Year 2007-08 the Wastewater Division cleaned almost double the Agreement's minimum requirement. These levels of service not only exceed that required by the Agreement, but also the levels of service reported by other sanitation agencies.

Because the Agreement allows the City to "bank" work performed in excess of annual requirements, exceeding thresholds in some years can assist the City with compliance in years where service levels cannot be met. However, Sanitation has exceeded the minimum requirements in each year of the Agreement. Sanitation has not determined whether service levels for the maintenance and inspection of the sewer mains exceed that required to maintain the overflows at a minimal number.

- **Sanitation has experienced delays in the construction of permanent odor control facilities as part of the odor control requirements of the Agreement which presents a potential risk of non-compliance with the Agreement.**

  The Agreement established construction end dates for the installation of seven air treatment facilities (ATFs) to control sewer odors in specific areas of the City. After two ATFs were installed in 2006, because there was some indication that the ATFs were not the optimal solution for mitigating sewer odors, Sanitation determined that further study regarding planned odor control measures was needed.

  The Wastewater Division has just initiated an odor control study, two years after the development of the Odor Control Master Plan. This problem was exacerbated by a significant delay in obtaining approval of the rotating consulting engineer contract.

  Sanitation has been aware of the need to reevaluate the effectiveness of the ATF's since May 2006. The Environmental Protection Agency (EPA) and the Regional Water Quality Control Board (RWQCB) were made aware of this issue and have been continuously informed by Sanitation that the effectiveness of the ATF's needed to be reevaluated. However, Sanitation did not formally request an extension to the terms of the Agreement regarding the ATF's from the EPA and the RWQCB until November 13, 2007. This has placed Sanitation at risk in terms of compliance with the terms of the Agreement.

  Sanitation is currently working with the plaintiffs to determine the best solution to meet the Agreement's requirements in controlling sewer odors.

Projects are sorted by trump status then risk score, with the highest scores being the highest priorities.

Attachment D
Wastewater Capital Improvement Prioritized Project Listing

	Cat-egory	Project Title	Trump	Risk Score	CONS Sum	Prior Years 00PY CONS	2010-11 00Y CONS	2011-12 Yr1 CONS	2012-13 Yr 2 CONS	2013-14 Yr 3 CONS	2014-15 Yr 4 CONS	2015-16 Yr 5 CONS	2016-17 Yr 6 CONS	2017-18 Yr 7 CONS	2018-19 Yr 8 CONS	2019-20 Yr 9 CONS	2020-21 Yr 10 CONS
1	CS	ATF BIOTRICKLING EQUIPMENT	Trump	unscored	$4,990,000	$4,379,760	$610,240	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
2	CS	ATF ECIS - MISSION & JESSE	Trump	unscored	$14,975,000	$0	$0	$0	$6,036,000	$6,699,000	$2,240,000	$0	$0	$0	$0	$0	$0
3	CS	ATF ECIS - LA CNGA & JEFF UPG	Trump	unscored	$39,000	$0	$20,000	$19,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	CS	ATF NCOS SIPHON UPGRADE	Trump	unscored	$117,000	$0	$75,000	$42,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	CS	FIGUEROA MERIDIAN YORK RLF SWR	Trump	34.3750	$2,237,042	$0	$1,280,000	$957,042	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	CS	NORS DIVER STRUCT AIR CURT	Trump	7.5000	$200,000	$0	$200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
7	SW	DOWNTOWN LA LOW FLOW DIVR SEP	Trump	unscored	$881,412	$500,000	$235,412	$146,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
8	SW	GARVANZA PARK BMP SEP	Trump	unscored	$2,304,000	$400,000	$1,904,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	SW	N ATWATER CRK RESTORATION SEP	Trump	unscored	$1,618,781	$0	$620,000	$998,781	$0	$0	$0	$0	$0	$0	$0	$0	$0
10	SW	SOUTH LA WETLANDS PARK SEP	Trump	unscored	$2,955,000	$200,000	$2,505,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
11	CS	ALVARADO CRANDALL RLF SWR	Trump	unscored	$15,090,000	$14,610,000	$480,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
12	CS	ASSESSMENT ACT SWRS	Trump	unscored	$4,700,000	$2,700,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$0
13	CS	ATF ECIS - LA CNGA & JEFF	Trump	unscored	$17,225,000	$15,248,202	$1,976,798	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
14	CS	ATF NCOS SIPHON	Trump	unscored	$12,725,000	$10,758,000	$1,967,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
15	CS	AVE 45 ARROYO DR RLF SWR	Trump	unscored	$49,863,937	$46,061,821	$3,802,116	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
16	CS	COS REHAB NORS DIV 4 TO MARKET	Trump	22.8250	$16,555,261	$9,257,836	$5,797,425	$1,500,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
17	CS	EMERGENCY SEWER REPLACEMENT	Trump	0.0000	$180,788,000	$68,788,000	$15,000,000	$14,000,000	$13,000,000	$12,000,000	$10,000,000	$8,000,000	$8,000,000	$8,000,000	$8,000,000	$8,000,000	$8,000,000
18	CS	MAINTENANCE HOLE RESETTING	Trump	unscored	$8,173,200	$3,179,200	$580,000	$310,000	$388,000	$388,000	$388,000	$460,000	$460,000	$460,000	$460,000	$550,000	$550,000
19	CS	NOS REHAB MAZE PHASE 5	Trump	20.0750	$13,729,511	$3,300,057	$5,681,702	$4,747,752	$0	$0	$0	$0	$0	$0	$0	$0	$0
20	CS	NOS REHAB SIPHON TO LCIS JCT	Trump	unscored	$61,261,530	$57,628,998	$3,632,532	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
21	CS	ODOR CTRL HOLLYDALE SWR	Trump	15.4000	$1,146,180	$921,180	$225,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
22	CS	SSRP C04 ROSE & WASHINGTON	Trump	unscored	$3,078,748	$3,064,422	$14,326	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
23	CS	SSRP H04B 3RD & LA CIENEGA	Trump	19.0000	$1,461,444	$500,000	$828,544	$132,900	$0	$0	$0	$0	$0	$0	$0	$0	$0
24	CS	SSRP H18 MUIRFIELD & OLYMPIC	Trump	16.0000	$376,871	$310,708	$66,163	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
25	CS	SSRP H25A HOOVER & CLARISSA	Trump	16.0000	$733,628	$0	$107,800	$586,900	$38,928	$0	$0	$0	$0	$0	$0	$0	$0
26	CS	SSRP H25B MANZANITA & EFFIE	Trump	16.0000	$866,238	$0	$132,000	$692,124	$42,114	$0	$0	$0	$0	$0	$0	$0	$0
27	CS	SSRP H26A FRANKLIN & HYPERION	Trump	19.0000	$1,373,033	$896,400	$351,812	$124,821	$0	$0	$0	$0	$0	$0	$0	$0	$0
28	CS	SSRP H26B LOS FELIZ & RVERSIDE	Trump	22.0000	$1,321,671	$909,000	$292,519	$120,152	$0	$0	$0	$0	$0	$0	$0	$0	$0
29	CS	SSRP H26C SANBORN & GRIFF PARK	Trump	16.0000	$212,925	$0	$193,568	$19,357	$0	$0	$0	$0	$0	$0	$0	$0	$0
30	CS	SSRP H26D GRIF PARK & GLENDALE	Trump	16.0000	$459,005	$417,277	$41,728	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
31	CS	SSRP H35 GRIFFITH PK & FRANKLN	Trump	19.0000	$1,148,172	$0	$1,002,172	$146,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
32	CS	SSRP N09 FRESNO ST & OREGON ST	Trump	10.0000	$1,097,425	$0	$776,000	$321,425	$0	$0	$0	$0	$0	$0	$0	$0	$0
33	CS	SSRP N15 GLENDALE & SCOTT	Trump	16.0000	$2,326,265	$0	$2,114,787	$211,478	$0	$0	$0	$0	$0	$0	$0	$0	$0
34	CS	SSRP P11 MARMION & FIGUEROA	Trump	19.0000	$516,459	$0	$416,459	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
35	CS	SSRP P12 AV 50 & MONTE VISTA	Trump	16.0000	$1,029,954	$0	$726,000	$303,954	$0	$0	$0	$0	$0	$0	$0	$0	$0
36	CS	SSRP P13 RANGE & NORTH AV 55	Trump	16.0000	$1,045,461	$0	$850,000	$195,461	$0	$0	$0	$0	$0	$0	$0	$0	$0
37	CS	SSRP P14 PASADENA & MARMION	Trump	16.0000	$1,161,345	$0	$940,000	$221,345	$0	$0	$0	$0	$0	$0	$0	$0	$0
38	CS	SSRP P18A EAGLE ROCK & YORK	Trump	16.0000	$2,019,530	$0	$1,835,936	$183,594	$0	$0	$0	$0	$0	$0	$0	$0	$0
39	CS	SSRP P18B VERDUGO & AVE 33	Trump	16.0000	$1,892,533	$0	$1,720,485	$172,048	$0	$0	$0	$0	$0	$0	$0	$0	$0
40	CS	SSRP S15 GRAND AVE & 58TH ST	Trump	22.0000	$549,485	$0	$449,485	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
41	CS	SSRP U15 CAMDEN & EXPOSITION	Trump	16.0000	$260,254	$62,254	$148,000	$50,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
42	CS	SSRP U18A ROSCMARE & STRADELLA	Trump	16.0000	$1,181,771	$1,074,337	$107,434	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
43	CS	SSRP U18B VETERAN & SUNSET	Trump	16.0000	$1,596,560	$1,535,061	$61,499	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
44	CS	SSRP U19A ROCHESTER & BEV GLEN	Trump	19.0000	$3,806,735	$3,561,962	$244,773	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
45	CS	SSRP U19B PROSSER & OLYMPIC	Trump	19.0000	$2,695,819	$2,450,745	$145,074	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
46	CS	SSRP U24 ROBERTSON & ALCOTT	Trump	16.0000	$910,354	$758,629	$151,725	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
47	CS	UPPER BEACHWOOD EAST MH ADD	Trump	33.9625	$877,789	$0	$600,000	$277,789	$0	$0	$0	$0	$0	$0	$0	$0	$0
48	CS	UPPER BEACHWOOD WEST MH ADD	Trump	33.9625	$823,623	$0	$686,353	$137,270	$0	$0	$0	$0	$0	$0	$0	$0	$0
49	CS	WASH OXFORD BEACH RLF SWR	Trump	22.0000	$4,379,895	$4,131,234	$200,000	$48,661	$0	$0	$0	$0	$0	$0	$0	$0	$0
50	DCT	DCT AQUA DIAM FILTER PROC	Trump	36.0250	$10,000,000	$6,619,362	$3,380,638	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
51	DCT	DCT CAPITAL EQP REPLC PROG	Trump	unscored	$2,377,150	$1,107,150	$100,000	$200,000	$375,000	$595,000	$0	$0	$0	$0	$0	$0	$0
52	DCT	DCT CAPITAL STR REPLC PROG	Trump	unscored	$933,250	$808,250	$0	$0	$0	$125,000	$0	$0	$0	$0	$0	$0	$0
53	DCT	DCT FIL REPLACEMENT (INST)	Trump	36.0250	$5,737,600	$5,216,000	$521,600	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
54	DCT	DCT FILTER RAILING SYS UPGR	Trump	62.6500	$374,750	$0	$374,750	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
55	DCT	DCT GALLERY VENTILATION	Trump	38.6750	$238,040	$160,000	$78,040	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
56	DCT	DCT IN PLANT STORAGE	Trump	15.4000	$9,564,500	$0	$4,330,000	$4,695,000	$539,500	$0	$0	$0	$0	$0	$0	$0	$0
57	DCT	DCT LAB FACILITY	Trump	53.0875	$4,199,800	$3,420,000	$579,800	$200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
58	HTP	HTP BALANCING MACHINE ENCL	Trump	20.1875	$81,365	$0	$0	$81,365	$0	$0	$0	$0	$0	$0	$0	$0	$0
59	HTP	HTP CAPITAL EQP REPLC PROG	Trump	unscored	$38,716,093	$10,723,093	$3,894,000	$4,277,000	$4,731,500	$5,106,500	$5,043,500	$4,940,500	$0	$0	$0	$0	$0
60	HTP	HTP CAPITAL UTILITY REPLC PROG	Trump	unscored	$3,200,000	$300,000	$300,000	$400,000	$400,000	$600,000	$600,000	$600,000	$0	$0	$0	$0	$0
61	HTP	HTP DICE II WET CAKE PP REPLC	Trump	34.3750	$1,523,469	$1,434,972	$88,497	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
62	HTP	HTP DIG GAS COMP FAC	Trump	85.0000	$17,534,200	$0	$5,594,906	$8,575,740	$3,363,554	$0	$0	$0	$0	$0	$0	$0	$0
63	HTP	HTP DIG EXP LITIGATION PH 1	Trump	unscored	$41,000,000	$0	$41,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
64	HTP	HTP B ST GALLERY WALL REHAB	Trump	43.7500	$281,000	$0	$0	$281,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
65	HTP	HTP PRIM BATT C MOD	Trump	35.7500	$34,288,100	$31,171,000	$3,117,100	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
66	HTP	HTP PRIM SLUDGE CENTRIFUGE INS	Trump	12.0250	$11,150,103	$10,950,103	$200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
67	HTP	HTP PRIM SLUDGE CENTRIFUGE PRO	Trump	5.9500	$8,022,986	$7,922,986	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
68	HTP	HTP VDM BRIDGE REHAB	Trump	16.3875	$780,800	$236,000	$544,800	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0

Projects identified as "trump" are in construction, projects that are named in the CSSA, or that the City is contractually obligated to complete.
Trump60 projects are necessary for the mileage requirement of the CSSA.

	Cat-egory	Project Title	Trump	Risk Score	CONS Sum	Prior Years 00PY CONS	2010-11 00Y CONS	2011-12 Yr1 CONS	2012-13 Yr 2 CONS	2013-14 Yr 3 CONS	2014-15 Yr 4 CONS	2015-16 Yr 5 CONS	2016-17 Yr 6 CONS	2017-18 Yr 7 CONS	2018-19 Yr 8 CONS	2019-20 Yr 9 CONS	2020-21 Yr 10 CONS
69	LAG	LAG CAPITAL EQUIP REPL PROG	Trump	unscored	$1,403,000	$907,000	$75,000	$176,000	$80,000	$90,000	$75,000	$0	$0	$0	$0	$0	$0
70	LAG	LAG GALLERY VENTILATION	Trump	38.6750	$302,960	$164,000	$138,960	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
71	LAG	LAG HPE PIPING REHAB	Trump	21.2875	$137,364	$0	$137,364	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
72	PP	PP 606 - VALVES REPL	Trump	51.1000	$356,400	$0	$356,400	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
73	SW	CONSTRUCTION SERVICES CONTRACT	Trump	unscored	$40,000,000	$18,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000
74	SW	ENVIRONMENTAL LEARNING CENTER	Trump	1.0000	$8,099,313	$5,671,746	$2,427,567	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
75	SW	GREEN ACRES CERP	Trump	56.5750	$355,000	$0	$65,000	$65,000	$75,000	$75,000	$75,000	$0	$0	$0	$0	$0	$0
76	SW	LABORATORY EQUIPMENT PROC	Trump	unscored	$2,082,738	$1,068,238	$240,000	$475,000	$299,500	$0	$0	$0	$0	$0	$0	$0	$0
77	SW	WW NETWORK SERVERS CERP	Trump	18.7000	$6,692,000	$3,722,000	$100,000	$710,000	$320,000	$610,000	$940,000	$290,000	$0	$0	$0	$0	$0
78	TIWRP	TIWRP CAPITAL EQP REPLC	Trump	unscored	$4,350,000	$2,528,000	$217,000	$370,000	$545,000	$400,000	$290,000	$0	$0	$0	$0	$0	$0
79	TIWRP	TIWRP CENTRIFUGE IMP	Trump	unscored	$3,443,000	$3,231,000	$212,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
80	TIWRP	TIWRP LPGH LID REPLACEMENT	Trump	60.5500	$710,325	$0	$710,325	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
81	PP	VENICE PP PLANT VFD 5 UPGRADE	Trump	29.2000	$93,000	$19,668	$73,332	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
82	SW	SMURRF	Trump	unscored	$4,851,445	$2,918,315	$178,163	$261,663	$261,663	$261,663	$161,663	$161,663	$161,663	$161,663	$161,663	$161,663	$0
	project cutline without proposed rate adjustments							$50,183,622	$32,695,759	$29,150,163	$22,013,163	$16,652,163	$10,821,663	$10,821,663	$10,821,663	$10,911,663	$10,550,000
83	SW	TREATMENT PLANT PLANNED REPL	Trump	unscored	$115,000,000	$0	$0	$0	$0	$0	$29,857,068	$46,303,758	$40,000,000	$50,000,000	$55,000,000	$60,000,000	$65,000,000
84	HTP	HTP PREG BUIL FIRST FL MODIF	Trump	54.2500	$2,186,000	$0	$0	$2,186,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
85	CS	CIS RELIEF SWR	Trump	unscored	$6,873,000	$0	$413,000	$460,000	$500,000	$5,500,000	$0	$0	$0	$0	$0	$0	$0
86	CS	COS 59TH ST AND FOURTH AVE	Trump	39.0625	$8,388,000	$0	$0	$700,890	$4,193,850	$3,493,260	$0	$0	$0	$0	$0	$0	$0
87	CS	CS WW CONTROL SYSTEM REPL	Trump	20.8000	$5,289,150	$0	$895,321	$1,519,427	$2,874,402	$0	$0	$0	$0	$0	$0	$0	$0
88	DCT	DCT PERSONNEL & MULTI-USE FAC	Trump	unscored	$12,500,000	$0	$0	$0	$614,763	$8,310,685	$3,574,552	$0	$0	$0	$0	$0	$0
89	HTP	HTP WW CONTROL SYSTEM REPL	Trump	54.2500	$35,664,733	$0	$3,457,721	$8,797,236	$9,738,194	$7,776,050	$5,895,532	$0	$0	$0	$0	$0	$0
90	PP	VENICE PP DISCHARGE MANIFOLD REPL	Trump	44.8000	$3,008,000	$0	$0	$1,508,000	$1,500,000	$0	$0	$0	$0	$0	$0	$0	$0
91	SW	BOND ASSISTANCE PROGRAM	Trump	unscored	$5,000,000	$0	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
92	SW	ELC EXHIBITS AND MEDIA	Trump	1.0000	$2,250,000	$0	$0	$642,000	$1,608,000	$0	$0	$0	$0	$0	$0	$0	$0
93	SW	EMD LIMS REPLACEMENT	Trump	52.8750	$2,090,502	$0	$986,436	$802,258	$301,808	$0	$0	$0	$0	$0	$0	$0	$0
94	SW	WISARD MIGRATION PROJECT	Trump	18.4000	$972,000	$0	$810,000	$162,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
95	SW	WW SYSTEM AUDITOR FINL CONSLT	Trump	unscored	$4,085,000	$780,000	$275,000	$280,000	$285,000	$290,000	$295,000	$300,000	$305,000	$310,000	$315,000	$320,000	$330,000
96	SW	WW CONSULTANTS	Trump	unscored			$13,162,000	$9,200,000	$10,000,000	$11,000,000	$12,000,000	$13,000,000	$14,000,000	$15,000,000	$15,000,000	$15,000,000	$15,000,000
97	TIWRP	TIWRP BLOWER CTRL SYS UPGRADE	Trump	27.7750	$600,000	$0	$0	$304,468	$295,532	$0	$0	$0	$0	$0	$0	$0	$0
98	TIWRP	TIWRP CENTRIFUGE FEED PUMPS	Trump	16.1500	$112,350	$0	$0	$112,350	$0	$0	$0	$0	$0	$0	$0	$0	$0
99	TIWRP	TIWRP HEADWORKS WALL REHAB	Trump	17.2000	$75,000	$0	$0	$75,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
100	TIWRP	TIWRP WW CONTROL SYSTEM REPL	Trump	26.1250	$11,211,121	$0	$0	$0	$326,192	$5,265,307	$2,923,937	$2,695,685	$0	$0	$0	$0	$0
101	TIWRP	TIWRP AWTF MF MEMBRANE REPL	Trump	45.6250	$2,235,928	$0	$0	$1,915,346	$320,582	$0	$0	$0	$0	$0	$0	$0	$0
102	TIWRP	TIWRP AWTF RO MEMBRANE REPL	Trump	45.6250	$1,835,639	$0	$0	$1,215,315	$620,324	$0	$0	$0	$0	$0	$0	$0	$0
103	CS	SSRP A01 EMERSON AV & 82ND ST	Trump60	16.0000	$1,101,500	$0	$11,500	$1,090,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
104	CS	SSRP A04 AIRPORT & 78TH ST	Trump60	16.0000	$269,000	$0	$0	$18,930	$230,315	$19,755	$0	$0	$0	$0	$0	$0	$0
105	CS	SSRP C01A CALIF & ABBOTT KINN	Trump60	16.0000	$2,655,000	$0	$0	$0	$2,081,488	$573,512	$0	$0	$0	$0	$0	$0	$0
106	CS	SSRP C01B BILLOWVISTA & 83RD	Trump60	16.0000	$1,395,200	$0	$40,000	$861,677	$493,523	$0	$0	$0	$0	$0	$0	$0	$0
107	CS	SSRP C03 VENICE & STEWART	Trump60	22.0000	$2,890,810	$0	$63,310	$416,874	$2,410,626	$0	$0	$0	$0	$0	$0	$0	$0
108	CS	SSRP C08A PALISADES & SURFVIEW	Trump60	16.0000	$603,338	$0	$0	$0	$473,355	$129,983	$0	$0	$0	$0	$0	$0	$0
109	CS	SSRP C08B TEMESCAL & PALISADES	Trump60	16.0000	$2,132,000	$0	$0	$284,565	$1,702,725	$144,710	$0	$0	$0	$0	$0	$0	$0
110	CS	SSRP C08C OCEAN & TEMESCAL	Trump60	16.0000	$1,948,000	$0	$0	$137,190	$1,669,145	$141,665	$0	$0	$0	$0	$0	$0	$0
111	CS	SSRP E02 VENTURA & LANKERSHIM	Trump60	19.0000	$1,604,915	$0	$0	$1,604,915	$0	$0	$0	$0	$0	$0	$0	$0	$0
112	CS	SSRP E11 HESBY ST. & RIVERTON	Trump60	16.0000	$246,354	$0	$16,354	$230,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
113	CS	SSRP E35	Trump60	16.0000	$545,000	$0	$0	$0	$0	$299,676	$245,324	$0	$0	$0	$0	$0	$0
114	CS	SSRP E39 BALBOA BL & VENTURA BL	Trump60	19.0000	$3,052,000	$0	$0	$0	$874,008	$2,177,992	$0	$0	$0	$0	$0	$0	$0
115	CS	SSRP H03	Trump60	16.0000	$8,060,000	$0	$0	$0	$0	$2,858,100	$5,201,900	$0	$0	$0	$0	$0	$0
116	CS	SSRP H04A SNST PLZA & RSNG GLN	Trump60	16.0000	$1,543,413	$0	$421,413	$1,000,000	$122,000	$0	$0	$0	$0	$0	$0	$0	$0
117	CS	SSRP H14 WILSHIRE & ORANGE	Trump60	16.0000	$901,924	$0	$0	$0	$258,274	$643,650	$0	$0	$0	$0	$0	$0	$0
118	CS	SSRP H15 JUNE & WILSHIRE	Trump60	16.0000	$453,000	$0	$0	$0	$160,650	$292,350	$0	$0	$0	$0	$0	$0	$0
119	CS	SSRP H19 ARDEN BLVD & 3RD ST	Trump60	19.0000	$860,000	$0	$0	$0	$183,729	$676,271	$0	$0	$0	$0	$0	$0	$0
120	CS	SSRP H20 2ND & EDGEMOND	Trump60	16.0000	$3,182,518	$0	$0	$0	$451,440	$2,731,078	$0	$0	$0	$0	$0	$0	$0
121	CS	SSRP H21 OLYMPIC & OXFORD	Trump60	16.0000	$455,698	$0	$0	$0	$96,480	$359,218	$0	$0	$0	$0	$0	$0	$0
122	CS	SSRP H23 VERMONT & OLYMPIC	Trump60	19.0000	$1,644,000	$0	$0	$0	$351,169	$1,292,831	$0	$0	$0	$0	$0	$0	$0
123	CS	SSRP H24 SUNSET BL & RENO ST	Trump60	16.0000	$1,487,000	$0	$0	$104,730	$1,274,215	$108,055	$0	$0	$0	$0	$0	$0	$0
124	CS	SSRP H31	Trump60	16.0000	$2,407,000	$0	$0	$0	$0	$0	$1,887,100	$519,900	$0	$0	$0	$0	$0
125	CS	SSRP H33 KENMORE & FOUNTAIN	Trump60	16.0000	$1,043,000	$0	$0	$0	$369,900	$673,100	$0	$0	$0	$0	$0	$0	$0
126	CS	SSRP N01 BUDLONG & LEIGHTON	Trump60	16.0000	$206,000	$0	$0	$0	$73,050	$132,950	$0	$0	$0	$0	$0	$0	$0
127	CS	SSRP N02 SAN PEDRO & 31ST	Trump60	16.0000	$821,940	$0	$0	$0	$57,870	$704,085	$59,985	$0	$0	$0	$0	$0	$0
128	CS	SSRP N05	Trump60	16.0000	$2,442,000	$0	$0	$0	$0	$521,612	$1,920,388	$0	$0	$0	$0	$0	$0
129	CS	SSRP N12 PARK VIEW & BEVERLY	Trump60	16.0000	$1,675,000	$0	$0	$0	$594,000	$1,081,000	$0	$0	$0	$0	$0	$0	$0
130	CS	SSRP N13 CESAR CH & ALAMEDA	Trump60	22.0000	$1,188,261	$0	$440,261	$748,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
131	CS	SSRP P09 GRIFFIN AVE & AVE 43	Trump60	19.0000	$767,000	$0	$0	$0	$0	$657,000	$110,000	$0	$0	$0	$0	$0	$0
132	CS	SSRP P10 AVE 43 & MARMION	Trump60	16.0000	$1,171,152	$0	$121,152	$900,000	$150,000	$0	$0	$0	$0	$0	$0	$0	$0
133	CS	SSRP P15 LEWIS & SAYLIN	Trump60	16.0000	$2,067,348	$0	$0	$0	$145,590	$1,771,345	$150,413	$0	$0	$0	$0	$0	$0
134	CS	SSRP P21A LOS FELIZ & REVERE	Trump60	19.0000	$1,763,000	$0	$0	$0	$124,140	$1,510,370	$128,490	$0	$0	$0	$0	$0	$0

	Cat-egory	Project Title	Trump	Risk Score	CONS Sum	Prior Years 00PY CONS	2010-11 00Y CONS	2011-12 Yr1 CONS	2012-13 Yr 2 CONS	2013-14 Yr 3 CONS	2014-15 Yr 4 CONS	2015-16 Yr 5 CONS	2016-17 Yr 6 CONS	2017-18 Yr 7 CONS	2018-19 Yr 8 CONS	2019-20 Yr 9 CONS	2020-21 Yr 10 CONS
135	CS	SSRP P21B GLENDALE & ROWENA	Trump60	19.0000	$1,555,000	$0	$0	$0	$109,500	$1,332,250	$113,250	$0	$0	$0	$0	$0	$0
136	CS	SSRP P21C LOS FELIZ & 5 FWY	Trump60	19.0000	$3,152,000	$0	$0	$0	$221,970	$2,700,635	$229,395	$0	$0	$0	$0	$0	$0
137	CS	SSRP S03 RODEO & NORTON	Trump60	16.0000	$1,229,623	$0	$519,623	$710,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
138	CS	SSRP S05 10TH AV & 71 ST	Trump60	19.0000	$1,722,000	$0	$0	$0	$367,822	$1,354,178	$0	$0	$0	$0	$0	$0	$0
139	CS	SSRP S06 VERMONT & 76TH ST	Trump60	16.0000	$3,898,000	$0	$0	$1,293,617	$2,604,383	$0	$0	$0	$0	$0	$0	$0	$0
140	CS	SSRP S12 59TH ST & MAIN ST	Trump60	16.0000	$389,000	$0	$0	$0	$0	$0	$304,942	$84,058	$0	$0	$0	$0	$0
141	CS	SSRP T01 3RD & MESA	Trump60	19.0000	$2,186,000	$0	$0	$0	$314,516	$1,871,484	$0	$0	$0	$0	$0	$0	$0
142	CS	SSRP T03 PASEO DL MR & CAROLNA	Trump60	22.0000	$1,910,528	$0	$175,528	$1,735,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
143	CS	SSRP T04 S ALMA & W 10TH ST	Trump60	16.0000	$1,837,000	$0	$0	$0	$264,313	$1,572,687	$0	$0	$0	$0	$0	$0	$0
144	CS	SSRP T05 CHANNEL & GAFFEY ST	Trump60	16.0000	$933,000	$0	$0	$651,567	$281,433	$0	$0	$0	$0	$0	$0	$0	$0
145	CS	SSRP T06A ANAHEIM & BROAD	Trump60	19.0000	$2,247,000	$0	$0	$0	$0	$158,250	$1,925,375	$163,375	$0	$0	$0	$0	$0
146	CS	SSRP T06B FRIES & PIER A	Trump60	20.8000	$1,713,000	$0	$0	$0	$0	$120,630	$1,467,665	$124,705	$0	$0	$0	$0	$0
147	CS	SSRP U01 MARINA FWY & WCH PKWY	Trump60	16.0000	$2,100,000	$0	$0	$1,047,534	$1,052,466	$0	$0	$0	$0	$0	$0	$0	$0
148	CS	SSRP U03 BENTLEY & CHARNOCK	Trump60	19.0000	$217,000	$0	$0	$0	$107,908	$109,092	$0	$0	$0	$0	$0	$0	$0
149	CS	SSRP U09 OHIO AV & STONER AV	Trump60	16.0000	$792,100	$0	$0	$562,391	$229,709	$0	$0	$0	$0	$0	$0	$0	$0
150	CS	SSRP U10 N BUNDY & TRAVIS ST	Trump60	16.0000	$1,250,600	$0	$0	$981,031	$269,569	$0	$0	$0	$0	$0	$0	$0	$0
151	CS	SSRP U11 BUNDY & SAN VINCENTE	Trump60	16.0000	$1,718,000	$0	$0	$0	$367,003	$1,350,997	$0	$0	$0	$0	$0	$0	$0
152	CS	SSRP U14 OVERLAND & 10 FWY	Trump60	16.0000	$1,898,000	$0	$0	$0	$0	$405,405	$1,492,595	$0	$0	$0	$0	$0	$0
153	CS	SSRP U16 SELBY & LA GRANGE	Trump60	19.0000	$684,000	$0	$0	$0	$48,000	$586,000	$50,000	$0	$0	$0	$0	$0	$0
154	CS	SSRP U20 BEV GLEN & QUITO LN	Trump60	16.0000	$1,563,000	$0	$0	$0	$224,846	$1,338,154	$0	$0	$0	$0	$0	$0	$0
155	CS	SSRP U21 GAYLEY & LE CONTE	Trump60	16.0000	$3,317,754	$0	$0	$0	$944,526	$2,373,228	$0	$0	$0	$0	$0	$0	$0
156	CS	SSRP U22A MULHOLLND & BELLAGIO	Trump60	16.0000	$1,121,200	$0	$0	$860,634	$260,566	$0	$0	$0	$0	$0	$0	$0	$0
157	CS	SSRP U22B BELLAGIO & WILSHIRE	Trump60	16.0000	$1,111,700	$0	$0	$853,303	$258,397	$0	$0	$0	$0	$0	$0	$0	$0
158	CS	SSRP U23 DAVID & CANFIELD	Trump60	16.0000	$3,037,153	$0	$0	$0	$869,738	$2,167,415	$0	$0	$0	$0	$0	$0	$0
159	CS	SSRP W32 SERRANIA & DUMETZ	Trump60	16.0000	$3,161,000	$0	$0	$0	$2,478,280	$682,720	$0	$0	$0	$0	$0	$0	$0
160	CS	SSRP Z13 MORAY & W 25TH	Trump60	19.0000	$752,856	$0	$0	$0	$321,456	$431,400	$0	$0	$0	$0	$0	$0	$0
161	HTP	HTP DIG GAS DESULF FAC IMPR		69.3625	$6,755,503	$0	$0	$1,199,770	$5,555,733	$0	$0	$0	$0	$0	$0	$0	$0
162	DCT	DCT NATURAL GAS PIPELINE REPL		67.0375	$430,000	$0	$430,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
163	HTP	HTP SCREENING HANDLING IMPR		62.6500	$4,960,000	$0	$0	$3,579,956	$1,380,044	$0	$0	$0	$0	$0	$0	$0	$0
164	HTP	HTP AUX BOILER NO.2 REPL		59.5000	$3,374,077	$0	$897,077	$2,477,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
165	DCT	DCT SEC CLAR CRACK REHAB		55.4125	$95,000	$0	$0	$95,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
166	HTP	HTP 1 & 5 MILE OUTFALL REBAL		54.2500	$9,713,000	$0	$0	$1,618,833	$8,094,167	$0	$0	$0	$0	$0	$0	$0	$0
167	DCT	DCT ELECT VAULTS MH 1-3 REPL		50.7500	$325,080	$0	$39,645	$285,435	$0	$0	$0	$0	$0	$0	$0	$0	$0
	project cutline with proposed rate adjustments						**$156,807,450**	**$105,911,864**									
168	HTP	HTP SERVICE WATER FAC UPG		50.3125	$4,500,000	$0	$0	$2,751,020	$1,748,980	$0	$0	$0	$0	$0	$0	$0	$0
169	CS	ODOR CTRL ATWATER VILLAGE SWR		50.0500	$740,000	$0	$0	$740,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
170	HTP	HTP DIG GAS FLARE REHB		48.4375	$1,886,593	$0	$0	$0	$1,552,582	$334,011	$0	$0	$0	$0	$0	$0	$0
171	LAG	LAG ELECTRICAL POWER SYS MODS		48.1000	$5,216,400	$0	$0	$0	$4,745,916	$470,484	$0	$0	$0	$0	$0	$0	$0
172	HTP	HTP BOILER SYS EXPAN		47.9500	$10,630,291	$0	$0	$0	$0	$1,149,240	$6,991,210	$2,489,841	$0	$0	$0	$0	$0
173	LAG	LAG NDN BLOW SYS ABB DCS PRO		46.9000	$1,149,801	$0	$0	$0	$467,658	$512,464	$169,679	$0	$0	$0	$0	$0	$0
174	LAG	LAG NDN BLOWER INSTALLATION		46.9000	$2,381,735	$0	$0	$0	$237,760	$1,582,182	$561,793	$0	$0	$0	$0	$0	$0
175	LAG	LAG NDN BLOWER PROCUREMENT		46.9000	$6,438,998	$0	$0	$0	$2,619,624	$2,900,373	$919,001	$0	$0	$0	$0	$0	$0
176	PP	VENICE PP DUAL FORCE MAIN		44.8000	$52,585,000	$0	$0	$0	$9,489,468	$19,136,220	$19,136,220	$4,823,092	$0	$0	$0	$0	$0
177	CS	WASH GRIFFITH LB SWR REPLC		43.7500	$7,110,000	$0	$0	$0	$2,804,628	$4,305,372	$0	$0	$0	$0	$0	$0	$0
178	TIWRP	TIWRP HEADWORKS IMPROVEMENTS		43.7500	$7,524,563	$0	$0	$0	$0	$2,667,759	$4,856,804	$0	$0	$0	$0	$0	$0
179	CS	WLAIS REHAB OVERLAND TO KELTON		43.7500	$4,000,000	$0	$0	$0	$0	$991,699	$1,999,835	$1,008,466	$0	$0	$0	$0	$0
180	CS	AIR SCRUBBER UNIT IMPROVEMENTS		40.9375	$460,000	$0	$0	$367,659	$92,341	$0	$0	$0	$0	$0	$0	$0	$0
181	HTP	HTP EPP HEADER REPL		40.6000	$10,000,000	$0	$0	$0	$451,440	$4,993,200	$4,555,360	$0	$0	$0	$0	$0	$0
182	TIWRP	TIWRP BLOWER REPLC		40.6000	$10,534,387	$0	$0	$0	$0	$0	$0	$4,527,353	$6,007,034	$0	$0	$0	$0
183	CS	NORMANDIE SWR REPL/REHAB		38.5000	$14,607,000	$0	$0	$0	$3,639,718	$5,852,410	$5,114,872	$0	$0	$0	$0	$0	$0
184	DCT	DCT EMERGENCY BACKUP POWER		38.0000	$7,938,374	$0	$0	$0	$3,439,581	$4,498,793	$0	$0	$0	$0	$0	$0	$0
185	CS	NEIS PH 2		36.0500	$315,621,352	$0	$0	$0	$0	$0	$0	$24,383,322	$58,247,606	$58,247,606	$58,247,606	$58,247,606	$58,247,606
186	CS	NORMANDIE REPL LCL 68-VERMONT		34.3750	$9,600,000	$0	$0	$0	$0	$0	$2,981,191	$4,806,678	$1,812,131	$0	$0	$0	$0
187	CS	UPPER BEACHWOOD EASEMNT MH ADD		33.9625	$997,000	$0	$0	$0	$0	$0	$0	$0	$596,676	$400,324	$0	$0	$0
188	LAG	LAG TERTIARY FILTER REPL		33.4375	$4,237,218	$0	$0	$0	$1,298,976	$2,822,180	$116,062	$0	$0	$0	$0	$0	$0
189	HTP	HTP GRIT HANDL IMPROV		33.2500	$10,870,000	$0	$0	$0	$3,711,708	$7,158,292	$0	$0	$0	$0	$0	$0	$0
190	HTP	HTP SOLIDS HNDL TRUCK LOAD FAC		32.7250	$70,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$22,694,883	$34,952,035	$12,353,082	$0
191	TIWRP	TIWRP TER FIL INF PUMP VFD RPL		32.5000	$1,067,850	$0	$0	$0	$615,698	$452,152	$0	$0	$0	$0	$0	$0	$0
192	HTP	HTP DICE II CENTRIFUGE REPL		31.0750	$17,800,000	$0	$0	$0	$0	$0	$0	$0	$3,973,515	$11,791,325	$2,035,160	$0	$0
193	DCT	DCT ODOR CNTRL SYS EVAL TEST		30.8000	$750,000	$0	$0	$0	$436,437	$313,563	$0	$0	$0	$0	$0	$0	$0
194	CS	4TH AVE SLAUSON SWR REHAB		30.6250	$17,673,000	$0	$0	$0	$5,495,670	$8,836,650	$3,340,680	$0	$0	$0	$0	$0	$0
195	HTP	HTP TRK LDG FAC ODOR CTL MOD		30.4000	$7,200,000	$0	$0	$0	$3,176,400	$4,023,600	$0	$0	$0	$0	$0	$0	$0
196	SW	EMPAC SYSTEM REPLACEMENT		30.2500	$1,349,791	$0	$0	$0	$0	$76,403	$1,273,388	$0	$0	$0	$0	$0	$0
									$153,373,028	**$182,417,345**							
197	HTP	HTP SUBSTATION SEPARATION		29.6875	$4,376,925	$0	$0	$0	$0	$822,306	$3,554,619	$0	$0	$0	$0	$0	$0
198	PP	VENICE PP VIBRATION REHAB		28.9750	$612,000	$0	$0	$0	$0	$612,000	$0	$0	$0	$0	$0	$0	$0

Projects are sorted by trump status then risk score, with the highest scores being the highest priorities.

	Cat-egory	Project Title	Trump	Risk Score	CONS Sum	Prior Years 00PY CONS	2010-11 00Y CONS	2011-12 Yr1 CONS	2012-13 Yr 2 CONS	2013-14 Yr 3 CONS	2014-15 Yr 4 CONS	2015-16 Yr 5 CONS	2016-17 Yr 6 CONS	2017-18 Yr 7 CONS	2018-19 Yr 8 CONS	2019-20 Yr 9 CONS	2020-21 Yr 10 CONS
199	DCT	DCT ELECTRICAL POWER SYS MODS		27.5500	$5,900,000	$0	$0	$0	$0	$5,384,080	$515,920	$0	$0	$0	$0	$0	$0
200	CS	LCIS REHAB BLACKWELDER MELROSE		27.5000	$60,309,000	$0	$0	$0	$0	$0	$4,025,024	$24,150,144	$24,084,160	$8,049,672	$0	$0	$0
201	CS	LCIS REHAB JEFFERSON LA CIEN		27.5000	$6,100,000	$0	$0	$0	$0	$2,842,284	$3,257,716	$0	$0	$0	$0	$0	$0
202	CS	NOS REHAB PROGRAM		27.5000	$70,000,000	$0	$0	$0	$0	$0	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
203	CS	NOS REHAB U-2 WESTERN TO VERMONT		26.5625	$13,375,000	$0	$0	$0	$0	$4,159,094	$6,687,530	$2,528,376	$0	$0	$0	$0	$0
204	CS	NOS REHAB U-5 SAN PEDRO HOOPER		26.5625	$10,920,000	$0	$0	$0	$0	$0	$0	$0	$4,996,306	$5,460,035	$463,659	$0	$0
205	CS	NOS REHAB U-6 HOOPER WILSON		26.5625	$16,300,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,300,000
206	CS	NOS REHAB U-7 WILSON LA RIVER		26.5625	$12,600,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,051,457	$6,308,742	$5,239,801
											$172,402,978	**$159,060,916**	**$175,344,091**				
207	CS	74TH STREET SEWER REHAB		26.1250	$17,867,943	$0	$0	$0	$0	$0	$0	$5,048,088	$8,081,369	$4,738,486	$0	$0	$0
208	CS	ENTERPRISE ST SIPHON MOD		25.8500	$1,579,000	$0	$0	$0	$0	$433,800	$1,055,580	$89,620	$0	$0	$0	$0	$0
209	HTP	HTP ODOR CTRL HDWRKS SYS RPL		25.0250	$6,930,000	$0	$0	$0	$0	$2,764,364	$4,165,636	$0	$0	$0	$0	$0	$0
210	HTP	HTP DEWATER CENTRFG & PUMP 7&8		25.0000	$20,890,000	$0	$0	$0	$0	$1,766,938	$10,402,135	$8,720,927	$0	$0	$0	$0	$0
211	CS	COS REHAB MARKET ST TO RODEO		22.8250	$53,240,000	$0	$0	$0	$0	$0	$16,224,718	$17,779,182	$17,730,605	$1,505,495	$0	$0	$0
212	CS	NOS REHAB U-1 VAN NESS WESTERN		22.8250	$9,500,000	$0	$0	$0	$0	$0	$1,055,544	$6,333,264	$2,111,192	$0	$0	$0	$0
213	CS	DAR 01 HOLLYWOOD		22.0000	$3,567,000	$0	$0	$0	$0	$596,153	$2,970,847	$0	$0	$0	$0	$0	$0
214	CS	VERMONT AV SWR REPLC		21.6125	$9,400,000	$0	$0	$0	$0	$0	$4,010,863	$5,389,137	$0	$0	$0	$0	$0
215	CS	VERMONT MANCHSTER SWR REHAB		21.6125	$5,600,000	$0	$0	$0	$0	$0	$931,304	$4,484,964	$183,732	$0	$0	$0	$0
216	TIWRP	TIWRP BLENDER TANK RIM REHAB		20.0000	$459,287	$0	$0	$0	$0	$0	$183,425	$275,862	$0	$0	$0	$0	$0
217	DCT	DCT ELECTRICAL VAULT REHAB		17.8750	$463,208	$0	$0	$0	$0	$463,208	$0	$0	$0	$0	$0	$0	$0
218	HTP	HTP COMP ROOM CLNG SYS UPGRD		17.8750	$2,274,450	$0	$0	$0	$0	$1,189,200	$1,085,250	$0	$0	$0	$0	$0	$0
219	CS	N HOLLYWD SEWER SAN MTCE YD		17.8750	$10,605,000	$0	$0	$0	$0	$0	$5,650,938	$4,954,062	$0	$0	$0	$0	$0
220	SW	SOUTH DISTRICT YARD IMPRV		17.8750	$11,692,000	$0	$0	$0	$3,890,233	$7,801,767	$0	$0	$0	$0	$0	$0	$0
221	DCT	DCT WW CONTROL SYSTEM REPL		17.6000	$14,824,612	$0	$0	$0	$0	$0	$4,112,977	$5,079,293	$3,653,063	$1,979,279	$0	$0	$0
222	CS	WESTERN 35TH RLF SWR		17.2000	$22,436,000	$0	$0	$0	$0	$0	$5,578,176	$15,011,856	$1,845,968	$0	$0	$0	$0
223	HTP	HTP DILUTE POLYMER PUMP IMPR		16.3750	$2,800,000	$0	$0	$0	$0	$0	$1,813,050	$986,950	$0	$0	$0	$0	$0
224	TIWRP	TIWRP HPE DISINFECTION		15.4000	$636,694	$0	$0	$0	$0	$320,996	$315,698	$0	$0	$0	$0	$0	$0
														$201,498,768	**$188,386,580**	**$173,641,093**	**$181,167,407**
225	LAG	LAG WW CONTROL SYSTEM REPL		14.8500	$3,703,579	$0	$0	$0	$0	$0	$1,102,902	$1,854,476	$746,201	$0	$0	$0	$0
226	CS	SAN PEDRO SIPHON UPSTREAM 30"		14.8000	$1,501,000	$0	$0	$0	$0	$0	$1,249,572	$251,428	$0	$0	$0	$0	$0
227	CS	FIGUEROA ST SWR REPLC		14.7875	$7,350,000	$0	$0	$0	$0	$0	$1,713,798	$4,209,732	$1,426,470	$0	$0	$0	$0
228	CS	BALDWIN HILLS AREA SWR REHAB		14.6000	$5,156,000	$0	$0	$0	$0	$0	$660,303	$4,495,697	$0	$0	$0	$0	$0
229	CS	FRONT ST SEWER REHAB		14.4625	$6,548,000	$0	$0	$0	$0	$1,094,340	$5,453,660	$0	$0	$0	$0	$0	$0
230	CS	EXPOSITION BL SWR REHAB		14.2000	$19,100,000	$0	$0	$0	$0	$0	$0	$3,361,904	$13,484,560	$2,253,536	$0	$0	$0
231	TIWRP	TIWRP FIRE PROTECT SYS REPLC		14.2000	$1,155,000	$0	$0	$0	$0	$0	$752,133	$402,867	$0	$0	$0	$0	$0
232	HTP	HTP IPS ODOR CNTRL IMPR		14.0000	$3,038,765	$0	$0	$0	$0	$0	$1,959,537	$1,079,228	$0	$0	$0	$0	$0
233	LAG	LAG HPE & INST AIR PIPNG RPLC		13.9750	$2,971,855	$0	$0	$0	$0	$0	$1,688,153	$1,283,702	$0	$0	$0	$0	$0
234	TIWRP	TIWRP NEW SERVICE MAINT FAC		13.2500	$12,304,290	$0	$0	$0	$0	$0	$2,567,149	$9,657,371	$79,770	$0	$0	$0	$0
235	CS	71ST AVALON SWR REHAB		12.8375	$7,100,000	$0	$0	$0	$0	$0	$2,071,950	$5,028,050	$0	$0	$0	$0	$0
236	CS	SLAUSON COMPTON SWR REHAB		11.8000	$15,000,000	$0	$0	$0	$0	$1,111,786	$6,652,490	$6,670,716	$565,008	$0	$0	$0	$0
237	CS	WILSHIRE AREA SYS SWR REHAB		11.7000	$8,989,000	$0	$0	$0	$0	$0	$0	$2,117,066	$6,333,845	$538,089	$0	$0	$0
238	CS	WILSHIRE AREA OLYM SWR REHAB		11.5375	$8,846,000	$0	$0	$0	$0	$0	$3,784,116	$5,061,884	$0	$0	$0	$0	$0
239	SW	BUREAU-WIDE SECURITY SYSTEM		11.2750	$2,114,981	$0	$0	$0	$0	$1,920,500	$194,481	$0	$0	$0	$0	$0	$0
240	CS	SOTO PICO SWR REPLC		11.0500	$30,823,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$30,823,000
241	CS	HIGHLAND PK EAGLE ROCK SWR RHB		9.1250	$14,774,000	$0	$0	$0	$0	$0	$0	$0	$0	$5,256,639	$8,452,305	$1,065,056	$0
242	CS	VAN NUYS SYLMAR SWR REHAB		8.8750	$9,582,322	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$9,582,322	$0
243	CS	JWOOD NORMAN BERENDO RLF SWR		8.8375	$3,705,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,837,331	$1,867,669	$0	$0
244	TIWRP	TIWRP AWTF CHLORINE CT LINING		8.8000	$1,940,400	$0	$0	$0	$0	$404,804	$1,535,596	$0	$0	$0	$0	$0	$0
245	CS	WILSHIRE WSTMORELAND SWR REHAB		7.5000	$1,909,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,629,905	$279,095	$0
246	CS	WILSHIRE WSTMORELAND SWR REHAB		7.5000	$1,909,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,629,905	$279,095	$0
247	TIWRP	TIWRP DIG GAS MOISTURE REM		6.2125	$1,965,844	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,965,844
248	CS	MANHATTAN 4TH SWR REHAB		5.7500	$1,061,000	$0	$0	$0	$0	$0	$0	$0	$0	$1,061,000	$0	$0	$0
249	HTP	HTP ABRA BLA & STEAM CLEAN FAC		5.5000	$997,524	$0	$0	$0	$0	$0	$0	$0	$0	$976,914	$20,610	$0	$0
250	CS	ADAMS BL RELIEF SEWER		unscored	$15,316,000	$0	$0	$0	$0	$0	$0	$0	$0	$4,762,687	$7,658,065	$2,895,248	$0
251	CS	CONCORD STREET RELIEF SWR		unscored	$2,579,365	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,579,365
252	CS	HOLLYWOOD SEWER SAN MTCE YD		unscored	$12,896,000	$0	$0	$0	$0	$0	$0	$0	$0	$6,871,744	$6,024,256	$0	$0
253	CS	HUMBOLDT FIGUEROA RLF SWR		unscored	$34,100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,342,530	$16,378,866	$16,378,604
254	CS	RESEDA SEWER SAN MTCE YD		unscored	$13,545,000	$0	$0	$0	$0	$0	$0	$0	$0	$7,217,692	$6,327,308	$0	$0
255	CS	WLA SEWER SAN MTCE YD		unscored	$13,561,000	$0	$0	$0	$0	$0	$0	$0	$0	$3,883,626	$9,677,374	$0	$0
256	HTP	HTP SEC CLARF EXPANSION		unscored	$25,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$6,453,902	$12,943,265	$5,602,833	$0
257	TIWRP	TIWRP POWER/ENERGY MGMT		unscored	$408,410	$0	$0	$0	$0	$0	$0	$0	$0	$408,410	$0	$0	$0
		Projects to be deferred even with proposed rate adjustments:					**$0**	**$3,858,679**	**$3,890,233**	**$33,687,620**	**$90,941,981**	**$119,627,326**	**$56,241,783**	**$41,521,570**	**$57,573,192**	**$36,082,515**	**$51,746,813**
		Total CIP needs:					**$156,807,450**	**$109,770,543**	**$157,263,261**	**$216,104,965**	**$263,344,959**	**$278,688,242**	**$231,585,874**	**$243,020,338**	**$245,959,772**	**$209,723,608**	**$232,914,220**

Projects identified as "trump" are in construction, projects that are named in the CSSA, or that the City is contractually obligated to complete.
Trump60 projects are necessary for the mileage requirement of the CSSA.

Attachment E
Major Sewer Failures

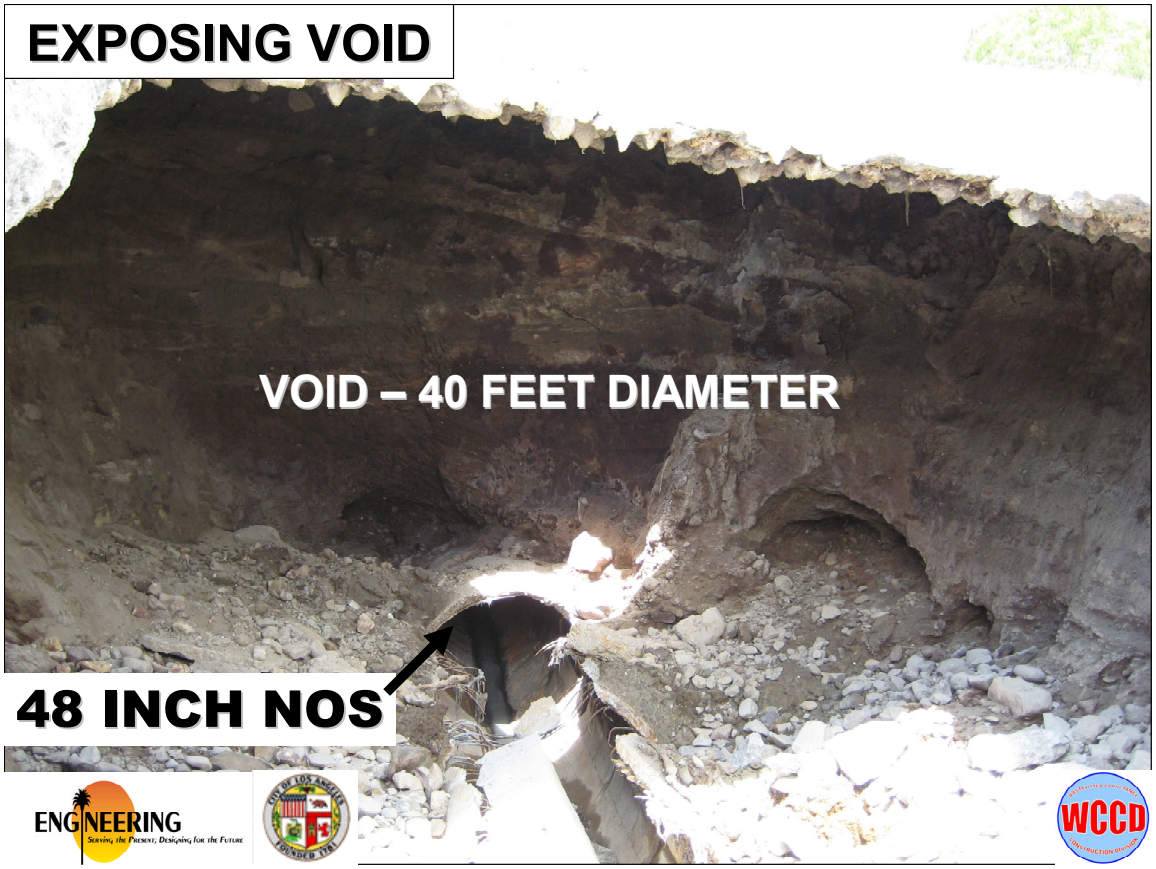
LCIS at Jefferson Blvd and Rodeo Road

The 63" pipe from Rodeo Road to approximately 100 feet upstream was severely deteriorated, resulting in a portion collapsing under a private building. The emergency project bypassed the sewer flow around the damaged area, stabilized the building, removed the debris, restored the building, and reconstructed about 1,000 feet of the sewer. The construction started in November 2006 and completed in November 2007. The total cost for this project was approximately $13 million. The claims were settled for another $ 2 million.

Attachment E
Major Sewer Failures

North Outfall Sewer- Los Angeles River

The 48" North Outfall Sewer (NOS) at the Los Angeles River, near Blake Street. was severely damaged, causing debris to fill the pipe under the river and create a large void under the side slope of the river. The NOS under the river was damaged as well as under the slopes of the river downstream and upstream of the river. The emergency contract constructed access pits for a bypass system, exposed the damaged pipe, cleaned debris, lined the sewer, grouted and backfilled the void, and reconstructed the Los Angeles River channel. The contract started in June 2007 and completed in May 2008. The total cost was approximately $17 million.



Attachment E
Major Sewer Failures

North Outfall Sewer @ Trinity and 23rd Street

On Thanksgiving 2008 the Bureau received numerous severe odor complaints near Trinity and 23rd Street. The resulting Closed Circuit Television inspection revealed a large void under the street with missing portions of the local 8" sewer and theupper portion of the 66" NOS. The emergency contract rehabilitated more than 1,000' of the 66" and over 120 of the 72" semi-elliptical sewer, rehabilitated a junction structure, and restored the site, including street and other failed utilities in the area. The contract started in November 2008 and completed in January 2010. The total cost was approximately $10 million.