MEETING DATE: 07/02/12

AGENDA ITEM: Adoption of a Resolution Approving the Engineer's Report, Declaring the Intention to Order the Annual Sewer User Service Charge, and Setting the Date, Time and Place for the Public Hearing to be Monday, July 23, 2012 at 7:00 PM in the City Council Chambers for the Sewer User's Service Charge

ATTACHMENTS

RESOLUTION NO. 2012-R__________

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CULVER CITY, CALIFORNIA, APPROVING THE ASSESSMENT ENGINEER'S REPORT, DECLARING ITS INTENTION TO ORDER THE ANNUAL LEVY AND COLLECTION OF ASSESSMENTS FOR THE SEWER USER'S SERVICE CHARGES AND SETTING A TIME AND PLACE FOR A PUBLIC HEARING THEREON.

WHEREAS, pursuant to the provisions of Culver City Municipal Code ("CCMC") §5.02.035.A, the City Council previously established a system of sewer user's service charges providing that each parcel of property shall pay its proportionate share of the costs for operation, maintenance, repair and improvements of the City sewerage system (the "Sewer User's Service Charges"); and

WHEREAS, the City Council desires to declare its intention to provide for the levy and collection of annual assessments for Fiscal Year 2012-2013, to provide for the costs and expenses necessary for the operation, maintenance, repair and improvements of the City sewerage system; and

WHEREAS, the Engineer's Report has been prepared and filed with the City Clerk and submitted to the City Council in accordance with CCMC §5.02.035.B; and

WHEREAS, the City Council has carefully examined and reviewed the Engineer's Report as presented and is preliminary satisfied with the proposed report, each and all of the budget items and documents as set forth therein and is satisfied that the levy amounts, on a preliminary basis, have been allocated so that each parcel of property shall pay its proportionate share of the costs for operation, maintenance, repair and improvements of the City sewerage system as set forth in the Engineer's Report.

NOW, THEREFORE, the City Council of the City of Culver City, DOES HEREBY RESOLVE as follows:

1. The Engineer's Report as presented, consisting of the following: a description of the operation, maintenance, repair and improvements of the City sewerage system, the estimated costs of operation, maintenance, repair and improvements, and the formulas used to determine the sewer user service charges for the parcels, is hereby approved on a preliminary basis and is on file in the Office of the City Clerk open for public inspection.

2. It is the intention of the City Council to levy and collect assessments for the Sewer User's Service Charges to pay the annual costs and expenses for the costs for operation, maintenance, repair and improvements of the City sewerage system for the fiscal year commencing July 1, 2012 and ending June 30, 2013. The operation, maintenance, repair and improvements are generally described as: 90 miles of sewer pipelines, seven sewer pump stations, and sewage transmission and treatment costs payable to the City of Los Angeles per the executed Amalgamated Agreement with City of Los Angeles. Costs include all necessary service, operations, administration and maintenance required to keep the City's sewerage system in a healthy, vigorous and satisfactory condition.

3. The Engineer's Report, as preliminarily approved by the City Council, is on file with the City Clerk and open for public inspection. Reference is made to the Engineer's Report for a full detailed description of the operation, maintenance, repair and improvements to be maintained, and the proposed assessments upon assessable lots and parcels of land within the City.

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4. The maximum assessment is not proposed to increase from the previous year above that previously approved by the City Council (as "increased assessment" is defined in California Government Code §54954.6).

5. Notice is hereby given that a public hearing is scheduled to be held at the Mike Balkman Council Chambers, 9770 Culver Boulevard, Culver City, California, on July 23, 2012 at 7:00pm or as soon thereafter as the matter may be heard. All interested persons, prior to the conclusion of the hearing, shall be afforded the opportunity to hear and be heard. The City Council shall consider all oral statements or written communication made or filed by any interested person.

6. The City Clerk is hereby directed to give notice of the public hearing by causing the resolution of intention, or summary thereof, to be published at least ten days prior to the date set for public hearing, as provided in CCMC §5.02.040.

APPROVED AND ADOPTED this __________day of ___________2012.

____
ANDREW WEISSMAN, Mayor
City of Culver City, California

ATTEST:

____
MARTIN R. COLE, City Clerk

A12-00515

APPROVED AS TO FORM:

for

CAROL A. SCHWAB, City Attorney

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Culver CITY
PUBLIC WORKS DEPARTMENT
9770 CULVER BOULEVARD, 2ND FLOOR
CULVER CITY, CALIFORNIA 90232-0507

CHARLES D. HERBERTSON
Public Works Director/City Engineer

Phone (310) 253-5600
FAX (310) 253-5626

ENGINEER'S REPORT

ON THE ANNUAL LEVY

2012-2013

SEWER USER'S SERVICE CHARGE

IN THE CITY OF CULVER CITY UNDER THE PROVISIONS

OF CHAPTER 5.02 OF THE CODE OF THE CITY OF CULVER CITY, CALIFORNIA

FILED with the City Clerk
on June 28, 2012

PRESENTED to the City Council
and APPROVED by Resolution
No. 2012-R____, adopted by said
City Council on July 2, 2012
and thereafter filed in the
Office of the City Clerk

____
Martin Cole
City Clerk
City of Culver City

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TO: The Honorable Mayor and Members of the City Council

FROM: Charles D. Herbertson, Public Works Director and City Engineer

CITY ENGINEER'S REPORT FOR SEWER USER'S SERVICE CHARGES FOR FISCAL YEAR 2012-13

Charles D. Herbertson RCE 46658
Public Works Director and City Engineer

1.0 Introduction

A major challenge confronting those responsible for wastewater infrastructure, transportation, treatment and disposal is acquiring adequate funds to finance and operate facilities and capital equipment, along with implementing appropriate pricing structures to ensure the self-sufficiency of the utility. The financing vehicle that is used by the utility and the timing of the financing are crucial in ensuring that wastewater customers are appropriately paying for facilities and services that they need, and not inappropriately financing facilities for future customers. It is a major goal of an effective financial plan to 'match' the economic impact on customers with the benefits received from the service.

Regulations governing Federal and State grant funds require the City of Los Angeles to maintain a Cost Recovery Program (Sewer User Charges System) which includes all operations and maintenance costs directly or indirectly related to the treatment and collection of liquid waste discharge by residents and businesses. As a result of Culver City's contractual relationship with the City of Los Angeles for wastewater treatment at the Hyperion Treatment Facility (Hyperion), Culver City (City) is also required to recover from each wastewater user their proportionate share of the costs incurred for wastewater collection capital improvements within Culver City, wastewater system operation and maintenance, City of Los Angeles capital improvements for conveyance to Hyperion and operation and maintenance at Hyperion. Accordingly, Culver City adopted a plan to collect wastewater user charges and implemented it for the first time in fiscal year 1980-81.

The City recovers wastewater user charges on an annual basis. Since the plan's inception, the County Auditor-Controller's offices, and the annual property tax bill, have been utilized as the vehicle for both billing and collection. This method has proven to be both functionally satisfactory and exceptionally economical.

In Fiscal Year 2003-2004 the City Council approved an update to the Sewer User's Service Charges (SUSC) structures and billing formulas.

2.0 Discussion

As it has been 9 years since the last update and due to several concerns expressed by certain property owners regarding the existing sewer formulas, the City Council approved staff's recommendation to enter into a contract with NBS to conduct a rate study of the current SUSC. The study has been completed and includes recommendations that will improve and best meet the City's goal of fairly and equitably collecting the annual sewer revenue requirements.

The first part of the Study contains a proposed five-year financial plan for the sewer enterprise funds in order to meet recommended operating, capital, and debt reserve balances and to adequately fund the City's proposed capital improvement program. The current unreserved cash balance is $17.2 million, although most of this will be spent on capital improvement projects over the next four years.

The new targets for reserve balances recommended by NBS are as follows:

1. Operating Reserve – 25% or 90 days of operating and maintenance expenses.

2. Capital Rehabilitation and Replacement Reserve – 3% of system net assets. The net assets is based on the 2010/11 CAFR, plus capital asset additions and annual depreciation adjustments, it is estimated that the City's Net Asset value of the sewer system is approximately $41.6 million.

3. Debt Reserve – the maximum annual debt service payment, as specified by the bond covenants.

These recommended targets for reserve balances equate to approximately $4.5 million. The capital improvement program is proposed to total $13.8 million in the five-year financial plan. This information was provided to NBS from City staff. Staff also provided NBS the projected charges by the City of Los Angeles, Culver City personnel costs, and administration and consultants expenses.

Based on the aforementioned recommended targets for reserve balances, proposed capital improvement program, and other expenses, the Study recommends 4% rate increases in each of the next three years, (Fiscal Years 2013/14 through 2015/16). At the end of the 5-year plan, the unreserved cash balance is projected to be approximately $4.5 million which matches the recommended reserve balance

The second part of the Study was a cost-of-service analysis. The purpose of this analysis is to equitably allocate the sewer costs to each customer class. The process includes two steps, first classifying the four types of costs (volume, BOD, SS, and number of accounts) and then allocating them based on specific factors for each type of cost. The Study contains several Exhibits that show how this is calculated.

The results of this exercise show that the revenue requirements change in each of the customer classes. For example an additional 11% of the revenue should come from single family customers. It also shows a reduction of 13% of the revenue from the commercial/restaurants customer class.

The following table summarizes the cost-of-service analysis revenue requirements from each customer class for Fiscal Year 2012-2013:

Customer Class Code	Commodity Charge
101 Single-Family	**+11% increase**
102 Multi-Family	**-1% reduction**
200 Commercial/Business:	**-2% reduction**
300 Commercial/Restaurants:	**-13% reduction**
400 Institutional:	**-4% reduction**
600 Special Users	**-8% reduction**

The third part of the study was a rate design analysis, which evaluated how the revenue requirements should be collected from base charges vs. commodity rates. This part of the study looked at all the sewer enterprise fund expenses and determined which ones are fixed costs (base charges) and variable costs (i.e. commodity charges). Base charges should be used to recover costs such as personnel costs, capital improvement costs, office expenses, and most of the administrative costs and consultant charges. Commodity charges should be used to recover what the City pays to the City of Los Angeles for wastewater treatment-related costs, utilities at the seven sewer pump stations, and some of administrative and consultant charges. The study determined that approximately 60% of the sewer utility costs are fixed and 40% are variable. Therefore, fixed charges (base charges) should collect 60% of the sewer rate revenue, and commodity charges should collect 40%.

This proposed change will improve the stability of the revenue amount because if overall water consumption is lower than the previous year, only the revenue collected from the commodity charge would be lower. Water consumption has been significantly lower these past several years due to a combination of factors such as water conservation and economic slowdown as shown in the following table:

2006 calendar year	2,435,491 HCF consumption and not irrigation	$8,683,340 sewer revenue
2007	2,451,378 HCF	$8,668,401
2008	2,284,560 HCF	$8,104,502
2009	2,285,866 HCF	$8,107,837
2010	2,062,720 HCF	$7,544,661

As a result, with no changes to the rates since 2007, sewer revenue has decreased by over $1 million.

At the time of the writing of this report, Staff received the water consumption data for 2011. A preliminary review indicates that the water consumption is nearly the same as it was in 2010. It is important to note that while conducting the study, NBS relied on the 2010 water consumption numbers and revenue numbers.

3.0 Recommendation

Staff recommends that:

1.) Only rate reductions be approved for the 2012-13 tax rolls.

Customer Class Code	Commodity Charge
102 Multi-Family	**-1% reduction**
200 Commercial/Business:	**-2% reduction**
300 Commercial/Restaurants:	**-13% reduction**
400 Institutional:	**-4% reduction**
600 Special Users	**-8% reduction**

It is too late now to recommend an 11% increase to the single family residence rates because the City is required to meet the Proposition 218 requirements of a minimum 45 day notice of the Public Hearing and submit the sewer charges to the County Assessor's office by their August 10 deadline. Staff proposes that the 11% increase be gradually implemented over a three-year period, beginning in 2013-14. This is in addition to the 4% rate increases for all customer classes beginning next year (2013-14).

2.) Residential customers can request alternative credits for landscape irrigation in two ways: I) by installing a separate water meter for landscaping which will not be assessed sewer charges on the tax bill, or ii) prove by submitting calculations and evidence that the percentage reduction in the tabled formula is not adequate.

3.) Continue to use Los Angeles Auditor-Controller property tax roll for SUSC billing purposes for FY 2012-2013 as it eliminates costly billing systems, additional staff, and minimizes bad debt.

Proposed SUSC Rates for 2012-2013

Customer Class Code	Base Charge		Commodity Charge
102 Multi-Family	$ 41.80 +		(W x $3.80)
101 Single Family	$ 42.32 +		(0.58W x $3.85)
200 Commercial/Business:	$ 41.37 +		(W x $3.76)
300 Commercial/Restaurants:	$ 36.89 +		(W x $6.65)
400 Institutional:	$ 40.50 +		(W x $3.59)
500 School/Public:	$ 42.32 +		(W x $3.26)
600 Special Users			
601	$ 39.11	+	(W x $3.79)
602	$ 39.11	+	(W x $4.94)
603	$ 39.11	+	(W x $4.94)
604	$ 39.11	+	(W x $3.47)
605	$ 39.11	+	(W x $2.97)
606	$ 39.11	+	(W x $4.94)
607	$ 39.03	+	(W x $4.55)
609	$ 39.10	+	(W x $3.56)
610	$ 39.11	+	(W x $0.71)
612	$ 39.12	+	(W x $0.36)
613	$ 39.11	+	(W x $0.36)
614	$ 39.09	+	(W x $0.36)
615	$ 39.12	+	(W x $3.02)
W=Annual Water Consumption in HCF Unit is a resident dwelling unit.			

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TRANSMITTAL

TO: MATE GASPAR, ENGINEERING SERVICE MANAGER
CULVER CITY

FROM: KIM BOEHLER, CONSULTANT
NBS

GREG CLUMPNER, DIRECTOR
NBS

SUBJECT: SEWER RATE STUDY FINDINGS, RECOMMENDATIONS AND PROPOSED RATES

DATE: JUNE 26, 2012

PURPOSE

The purpose of this transmittal is to summarize the findings of the Sewer Rate Study that NBS performed for Culver City's Sewer Utility (City or Utility). NBS' findings focus on equitably allocating Utility costs to each customer class and adjusting base charges and commodity rates in a manner that meets Proposition 218 requirements and is fiscally sustainable. Projected revenue requirements and rate adjustments cover the next four years (2012-13 through 2015-16). Recommended rate adjustments for 2012-13 retain the City's current rate design, while rates after 2012-13 incorporate cost-of-service adjustments, including collecting 60% of rate revenue from base charges and 40% from commodity charges. These changes are explained in more detail below.

Two appendices are included in this transmittal:

- Appendix A: Selected Tables for the Financial Plan and Revenue Requirement Analysis
- Appendix B: Selected Tables for the Cost-of-Service and Rate Design Analysis

OVERVIEW

A comprehensive sewer rate study typically includes the three key components shown in Exhibit 1, which are based on industry standards such as the American Water Works Association (AWWA) and Water Environment Federation (WEF) cost of service methodologies. The cost-of-service component in particular addresses the general requirements of equity and fairness embodied in Proposition 218. In terms of the chronology, these three steps represent the order they were performed in this study.

Exhibit 1. Primary Components of a Rate Study

1. Financial Plan/Revenue Requirements → 2. Cost-of-Service Analysis → 3. Rate Design

Step 1: Financial Plan/ Revenue Requirements - Compares current sources of funds (revenues) to uses of funds (expenses) and determines the revenue needed from rates.

Step 2: Cost-of-Service Analysis - Allocates the revenue requirements to the various customer classes in a "fair and equitable" manner that complies with Prop 218.

Step 3: Rate Design - Considers what rate structure alternatives will best meet the City's need to collect the annual revenue requirements from each customer class.

As a result of this rate study, changes in the total amount of rate revenue collected from each customer class, as well as changes to base charges and commodity rates, are recommended. The following are the key findings, followed by a summary of each of the three parts of this rate analysis.

KEY RATE STUDY FINDINGS

The following are NBS' key findings based on our analysis of the City's sewer revenue requirements, cost of service, and rate design issues. More details are provided in the following sections.

- **Revenue Requirements by Customer Class** – Based on the results of the cost-of-service analysis, the City's current sewer rates need to be adjusted to collect more revenue from single-family residential customers and less from other customer classes, particularly commercial/ restaurant customers. However, this additional revenue that should be collected from the single-family residential customers will be "phased-in" over a period of three years.

- **Changes in Rate Design** – The City currently collects approximately 90% of its rate revenue from commodity (consumption-based) charges and only 10% from base charges. Based on a classification of current expenses as either fixed or variable, the City should collect closer to 60% of rate revenue from base charges and 40% from its commodity charges.

- **Landscape/Irrigation Factors for Residential Customers** – The City's most current water consumption data (for 2010) indicates that total water consumption per dwelling unit is approximately 10 hcf/month for single-family customers compared to 5.6 hcf/month for multi-family customers. City of Los Angeles data[1] indicates that 58% of single-family water usage is returned to the sanitary sewer collection system as effluent, compared to 85% for multi-family customers. In light of the lack of recent, actual flow-return data for these two customer classes, these assumptions are not unreasonable; due to landscape irrigation, single-family customers typically return a lower percentage of water consumption to the sewer system.

[1] *From the City's 2003-04 Engineer's report, Table 2 - Summary of Users.*

FINANCIAL PLAN AND REVENUE REQUIREMENTS ANALYSIS

Projected Revenue Requirements and Rate Increases – NBS prepared a detailed five-year financial plan. The results of this plan indicate that the Utility is able to meet all obligations in Fiscal Year 2012/13 without rate increases, but will need a four percent rate increase in each of the next three years (2013/14 through 2015/16).

Exhibit 2. Summary of Five-Year Revenue Requirements and Rate Increases

Summary of Sources and Uses of Funds and Net Revenue Requirements	Budget	Projected			
	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Sources of Sewer Funds					
Rate Revenue Under Prevailing Rates	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661
Industrial Waste Inspection Fees	70,000	70,000	70,000	70,000	70,000
Interest Earnings	202,000	150,000	150,000	150,000	150,000
Total Sources of Funds	**$ 7,612,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**
Uses of Sewer Funds					
Operating Expenses	$ 5,858,475	$ 6,210,405	$ 6,096,069	$ 6,332,396	$ 6,509,572
Debt Service	1,606,800	1,605,200	1,603,000	1,608,300	1,605,650
Rate-Funded Capital Expenses	-	-	-	482,386	-
Total Use of Funds	**$ 7,465,275**	**$ 7,815,605**	**$ 7,699,069**	**$ 8,423,082**	**$ 8,115,222**
Surplus (Deficiency) before Rate Increase	**$ 147,386**	**$ (254,944)**	**$ (138,408)**	**$ (862,421)**	**$ (554,561)**
Additional Revenue from Rate Increases	-	293,626	598,998	916,584	916,584
Surplus (Deficiency) after Rate Increase	**$ 147,386**	**$ 38,683**	**$ 460,590**	**$ 54,163**	**$ 362,023**
Projected Annual Rate Increase	*0.00%*	*4.00%*	*4.00%*	*4.00%*	*0.00%*
Cumulative Rate Increases	*0.00%*	*4.00%*	*8.16%*	*12.49%*	*12.49%*
Net Revenue Requirement[1]	**$ 7,193,275**	**$ 7,595,605**	**$ 7,479,069**	**$ 8,203,082**	**$ 7,895,222**

1. Total Use of Funds less Industrial Water Inspection Fees and Interest Earnings. This is the annual amount needed from sewer rates. However, the proposed rates in this rate study have been set to recover the revenue currently collected from customers (i.e., $7,544,660 less $204,000 for the reduction in estimated revenue for FY 2012-13, per the Cost of Service Analysis results.

Capital Improvement Projects and Costs – The Utility has an adopted Capital Improvement Program (CIP) that has identified capital projects totaling $13.8 million, which are planned in 2012/13 through 2015/16. These projects will be funded from a combination of cash reserves set aside for rehabilitation and replacement, and rate revenue.

Exhibit 3. Adopted Capital Improvement Program
Fiscal Years 2012/13 through 2015/16

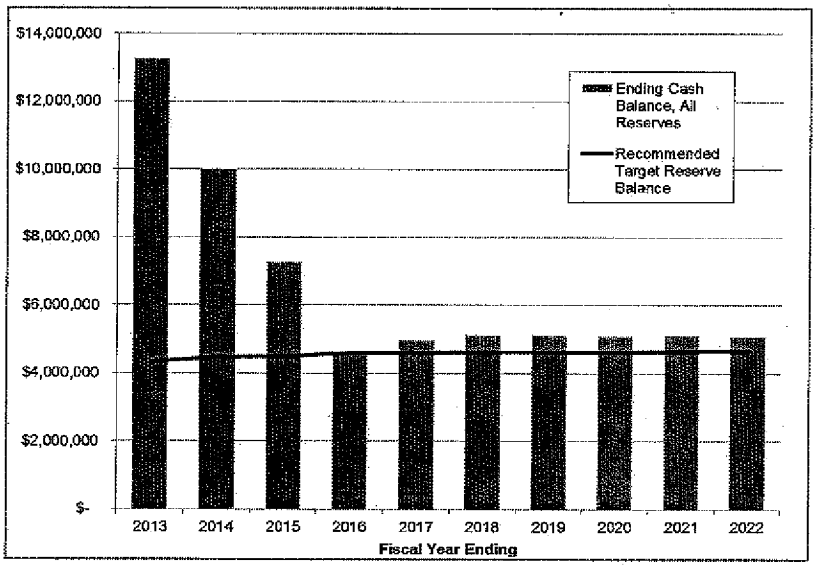
Project Description	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16
Sewer Main Rehabilitation Project	$ 3,000,000	$ -	$ -	$ -
Sewer Main Point Repair, Manhole Rehabilitation, and Sewer Video	$ 100,000	$ 100,000	$ 100,000	$ 100,000
Sewer Pump Stations Improvement P-521	$ 100,000	$ 200,000	$ 100,000	$ 100,000
Jasmine Second Force Main Project	$ 100,000	$ -	$ -	$ -
Overland pipeline diversion (Construction)	$ 500,000	$ -	$ -	$ -
Hayden second force main Project	$ 100,000	$ -	$ -	$ -
2nd force main Braddock connection to Los Angeles	$ 150,000	$ -	$ -	$ -
New Pump Station Selmaraine	$ -	$ 3,000,000	$ -	$ -
New pipelines to divert Mesmer	$ -	$ -	$ 3,000,000	$ 3,000,000
New siphon at sewer convergences at Culver/Madison	$ -	$ -	$ -	$ -
Upsize Duquesne Sewer Pipe to 21 inch from Lucerne to Jefferson	$ -	$ -	$ -	$ -
Financial System Replacement/Enhancements	$ 26,472	$ -	$ -	$ -
Total: Project Costs	**$ 4,076,472**	**$ 3,300,000**	**$ 3,200,000**	**$ 3,200,000**

Cash Management and Target Reserve Fund Balances – The Utility will begin Fiscal Year 2012/13 with a total cash balance of $17.2 million. Exhibits 4 and 5 summarize the cash balances by reserve fund and show the recommended target reserves. Due to the costs of the planned capital improvement projects, the Utility will need to draw down the Capital Rehab & Replacement Reserve over the next five years.

Exhibit 4. Ending Cash Balance Compared to Recommended Reserve Target

Beginning Reserve Fund Balances and Recommended Reserve Targets	Budget	Projected			
	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17
Operating Reserve					
Beginning Balance	$ 1,479,650	$ 1,465,000	$ 1,503,683	$ 1,524,000	$ 1,578,163
Recommended Minimum Target	*1,465,000*	*1,553,000*	*1,524,000*	*1,583,000*	*1,627,000*
Capital Rehab & Replacement Reserve					
Beginning Balance	$ 14,101,776	$ 10,187,340	$ 6,887,340	$ 4,127,614	$ 1,410,000
Recommended Minimum Target	*1,250,000*	*1,310,000*	*1,360,000*	*1,410,000*	*1,370,000*
Debt Reserve					
Beginning Balance	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838
Recommended Minimum Target	*1,608,838*	*1,608,838*	*1,608,838*	*1,608,838*	*1,608,838*
Total Beginning Balance	**$ 17,190,264**	**$ 13,261,178**	**$ 9,999,861**	**$ 7,260,451**	**$ 4,597,000**
Total Recommended Minimum Target	*$ 4,323,838*	*$ 4,471,838*	*$ 4,492,838*	*$ 4,601,838*	*$ 4,605,838*

Exhibit 5. Ending Cash Balance Compared to Recommended Reserve Target



NBS' recommended targets for year reserve balances are as follows:

- **Operating Reserve** - 25% or 90 days of operating and maintenance expenses.
- **Capital Rehabilitation and Replacement Reserve** - 3% of system net assets[2].
- **Debt Reserve** - the maximum annual debt service payment, as specified by the bond covenants.

[2] *Based on the 2010/11 CAFR, plus capital asset additions and annual depreciation adjustments, NBS has used a Net Asset Value of $41.6 million.*

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COST-OF-SERVICE ANALYSIS

The purpose of the cost-of-service analysis is to equitably allocate the sewer utility costs, or the net revenue required from sewer rates, to each customer class. This process includes two primary steps:

1. **Classifying various expenditures to one of four types of costs:**
    a. Volumetric-related costs
    b. Strength-related costs, including:
        - Biochemical Oxygen Demand, or BOD
        - Total Suspended Solids, or TSS
    c. Customer-related costs
2. **Allocating costs to customer classes based on specific allocation factors for each of the four cost types:**
    a. Volumetric-related costs are allocated using the percentage of total effluent (or water consumption as adjusted for landscaping uses) from each customer class.
    b. BOD-related costs are allocated based on estimated total pounds of BOD generated per year by each customer class, and reflects the assumed concentrations of BOD for residential, restaurants, commercial offices, etc.
    c. TSS-related costs are allocated based on estimated total pounds of TSS generated per year by each customer class, which reflects the concentrations of TSS for residential, restaurants, commercial offices, etc.
    d. Customer-related costs are allocated based on the number of accounts in each customer class.

This analysis produced the results shown in Exhibit 6 below, along with a summary of the sewer rate revenue currently collected from each customer class compared to the revenue requirements based on the cost-of-service. As shown in this table, an additional 11% of the revenue should come from single-family customers, while the restaurants and hotels should have reductions in rate revenue of 13% and 8%, respectively.

Exhibit 6. Revenue Requirements by Customer Class from COS Analysis

Cost-of-Service: Summary of Allocation of Revenue Requirements								
	Cost of Service Allocated Costs - 2012				Net Revenue Requirement by Class			
Customer Class	(CA) 22%	(VOL) 53%	(BOD) 13%	(TSS) 12%	COS Rev. Req't	% of COS Rev. Reqt.	at Present Rates	Percent Difference
101 Single-Family	$544,013	$962,013	$246,676	$239,608	$1,992,310	*26.4%*	$1,788,571	11%
102 Multi-Family	$587,925	$1,522,095	$390,290	$379,107	$2,879,417	*38.2%*	$2,915,211	-1%
200 Commercial/Business	$102,998	$888,087	$227,720	$221,195	$1,440,000	*19.1%*	$1,472,993	-2%
300 Commercial/Restaurants	$15,649	$225,777	$188,523	$202,890	$632,840	*8.4%*	$725,973	-13%
400 Institutional	$5,406	$113,140	$37,194	$16,011	$171,751	*2.3%*	$179,491	-4%
500 Schools/Public	$1,043	$7,444	$1,273	$1,053	$10,814	*0.1%*	$10,594	2%
600 Commercial/Hotels	$3,319	$258,430	$84,956	$71,316	$418,020	*5.5%*	$452,318	-8%
Total	$1,260,354	$3,976,986	$1,176,630	$1,131,180	$7,545,151	*100.0%*	$7,545,151	0%

We note that Exhibit 6 indicates that net revenue requirements of $7,545,151 should be recovered through sewer rates. This total reflects the City's current level of rate revenue, per the 2012/13 budget, and therefore represents a "revenue neutral" level of rate revenue. However, as directed by City staff, proposed rates will include the reductions indicated in Exhibit 6, but none of the increases. As a result, total annual rate revenue is estimated to be approximately $7.34 million.

RATE DESIGN AND PROPOSED RATES

The purpose of the rate design analysis is to determine how to collect fixed costs (i.e., base charges) and variable costs (i.e. commodity charges) from each of the customer classes. The primary factor in allocating rate revenue between these fixed and variable charges is the nature of the costs being collected. That is, fixed costs should be collected from fixed charges, and variable costs should be collected from variable charges.

Accurately allocating these fixed and variable charges improves the revenue stability of the sewer utility's rates, because changes in variable usage, or water consumption patterns, will be accounted for in the variable (commodity-related) charges. In other words, if overall water consumption dropped, the revenue collected from commodity-related charges would change in proportion to the commodity-related costs.

A basic evaluation of fixed and variable costs indicates that approximately 63% of the sewer utility costs are fixed and 37% are variable. Therefore, base charges and commodity rates should collect sewer rate revenue from fixed and variable charges in roughly these proportions. NBS' analysis incorporates these types of changes after 2012-13, rounding these percentages to 60% and 40% respectively.

The following table summarizes the 2011-12 rates and rate revenue along with the adjustments to 2012-13 sewer rates (note: this table reflects revenue requirements by customer class, but has made only the reductions previously shown in Exhibit 6).

Exhibit 7. Existing and Proposed Sewer Rates and Rate Revenue Reflecting COS and Rate Design Adjustments

Fiscal Year 2011-12 Sewer Rates and Rate Revenue and New 2012-13 Sewer Rates Incorporating COS Revenue Requirements										
	2011-12 Sewer Rates		2011-12 Annual Rate Revenue			2012-13 Adjusted Sewer Rates		2012-13 Annual Rate Revenue		
Customer Class	Base Charges ($/yr)	Commodity Rate ($/hcf)	Base Charges ($/yr)	Commodity Rate ($/hcf)	Total Annual Revenue	Base Charges ($/yr)	Commodity Rate ($/hcf)	Base Charges ($/yr)	Commodity Rate ($/hcf)	Total Annual Revenue
101 Single-Family	$42.32	$3.85	$242,748	$1,545,823	$1,788,571	$42.32	$3.85	$242,748	$1,545,823	$1,788,571
102 Multi-Family	$42.32	$3.85	$469,413	$2,445,798	$2,915,211	$41.80	$3.80	$463,650	$2,415,767	$2,879,417
200 Commercial/Business	$42.32	$3.85	$45,960	$1,427,033	$1,472,993	$41.37	$3.76	$44,930	$1,395,070	$1,440,000
300 Commercial/Restaurants	$42.32	$7.63	$6,983	$718,990	$725,973	$36.89	$6.65	$6,087	$626,753	$632,840
400 Institutional	$42.32	$3.75	$2,412	$177,079	$179,491	$40.50	$3.59	$2,308	$169,443	$171,751
500 Schools/Public	$42.32	$3.26	$466	$10,129	$10,594	$42.32	$3.26	$466	$10,129	$10,594
601 Special	$42.32	$4.10	$254	$67,310	$67,564	$39.11	$3.79	$235	$62,206	$62,441
602 Special	$42.32	$5.35	$85	$70,674	$70,758	$39.11	$4.94	$78	$65,315	$65,393
603 Special	$42.32	$5.35	$42	$65,382	$65,425	$39.11	$4.94	$39	$60,425	$60,464
604 Special	$42.32	$3.75	$85	$75,885	$75,970	$39.11	$3.47	$78	$70,131	$70,209
605 Special	$42.32	$3.21	$212	$74,093	$74,305	$39.11	$2.97	$196	$68,475	$68,671
606 Special	$42.32	$5.35	$42	$88,815	$88,858	$39.11	$4.94	$39	$82,081	$82,120
607 Special	$42.32	$3.85	$42	$189	$231	$39.03	$3.55	$39	$174	$213
608 Special	$42.32	$4.93	$42	$1,385	$1,428	$39.10	$4.55	$39	$1,280	$1,319
609 Special	$42.32	$3.85	$254	$2,360	$2,614	$39.11	$3.56	$235	$2,181	$2,416
610 Special	$42.32	$0.77	$42	$885	$927	$39.12	$0.71	$39	$818	$857
612 Special	$42.32	$0.39	$296	$636	$933	$39.11	$0.36	$274	$588	$862
613 Special	$42.32	$0.39	$42	$613	$655	$39.09	$0.36	$39	$566	$605
614 Special	$42.32	$3.27	$42	$2,609	$2,652	$39.12	$3.02	$39	$2,412	$2,451
Total			$769,462	$6,775,689	$7,545,151			$761,557	$6,579,637	$7,341,194
% of Total			10%	90%	100%			10%	90%	100%

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Exhibit 8 summarizes the proposed sewer rates for 2013-14 through 2015-16 that incorporate the cost-of-service based changes necessary to accomplish the following objectives:

- Phase-in cost-of-service based rate increases to two customer classes (single-family and Schools/Public accounts) over a three-year period.
- Increase all rates by 4% annually for 2013-14 through 2015-16, as indicated by the financial plan previously shown in Exhibit 2.
- Adjust sewer rates so they collect 60% of the revenue required from base charges and 40% from commodity rates.

Exhibit 8. Proposed Sewer Rates for 2013-14 through 2015-16

Summary of Proposed 2013-14 Through 2016-16 Sewer Rates Incorporating COS Revenue Requirements *Including Rate COS-Adjusted Allocations to Base Charges and Commodity Rates*[1]						
Customer Class	*2013-14*		*2014-15*		*2015-16*	
	Base Charges *($/yr)*	Commodity Rates *($/hcf)*	Base Charges *($/yr)*	Commodity Rates *($/hcf)*	Base Charges *($/yr)*	Commodity Rates *($/hcf)*
101 Single-Family	$254.24	$1.17	$264.32	$1.21	$274.80	$1.25
102 Multi-Family[2]	$202.97	$1.17	$211.48	$1.21	$220.42	$1.25
200 Commercial/Business	$254.24	$3.30	$264.32	$3.43	$274.80	$3.56
300 Commercial/Restaurants	$254.24	$6.54	$264.32	$6.80	$274.80	$7.07
400 Institutional	$254.24	$3.48	$264.32	$3.61	$274.80	$3.76
500 Schools/Public	$254.24	$2.67	$264.32	$2.78	$274.80	$2.89
601 Special	$254.24	$3.86	$264.32	$4.02	$274.80	$4.18
602 Special	$254.24	$5.11	$264.32	$5.31	$274.80	$5.53
603 Special	$254.24	$5.12	$264.32	$5.33	$274.80	$5.54
604 Special	$254.24	$3.58	$264.32	$3.73	$274.80	$3.88
605 Special	$254.24	$3.04	$264.32	$3.16	$274.80	$3.29
606 Special	$254.24	$5.13	$264.32	$5.33	$274.80	$5.55
607 Special	$222.00	$0.00	$230.00	$0.00	$240.00	$0.00
608 Special	$254.24	$3.98	$264.32	$4.14	$274.80	$4.30
609 Special	$254.24	$1.61	$264.32	$1.68	$274.80	$1.74
610 Special	$254.24	$0.55	$264.32	$0.58	$274.80	$0.60
612 Special	$128.07	$0.00	$133.19	$0.00	$138.52	$0.00
613 Special	$254.24	$0.24	$264.32	$0.25	$274.80	$0.26
614 Special	$254.24	$2.88	$264.32	$2.99	$274.80	$3.11

1. The base charges reflect residential classes and collect 60% of all sewer rate revenues; commodity charges collect 40%. The overall sewer rate revenue collected from each customer class matches the cost-of-service revenue requirements.

2. Multi-Family base charges are 80% of Single-Family base charges based on the differences in per unit water consumption. Multi-Family commodity rates are also adjusted to meet the revenue requirements for this class.

CONSULTANT RECOMMENDATIONS

Based on the results of this study, NBS recommends the City consider the following actions:

- Adopt this rate analysis as the basis for adjustments to the City's current sewer rates.
- Adopt a five-year financial plan, as summarized in Exhibits 2 through 4, as the "road map" for the Utility's financial management and cash management of reserves through 2016/17.
- Adopt the minimum *target* reserve fund balances as shown in Exhibit 4 and accumulate cash funds in excess of these targets into the Capital Rehab and Replacement Reserve with the intent of cash-funding planned capital improvements.
- Adopt and implement the proposed sewer rates shown above in Exhibits 7 and 8. This should not require a Prop 218 protest balloting process for the 2012-13 rates, but will necessitate a Prop 218 process each year thereafter in order to adopt and implement the recommended rates.

PRINCIPAL ASSUMPTIONS AND CONSIDERATIONS

In preparing this transmittal and the opinions and recommendations included herein, NBS has relied on a number of assumptions and considerations with regard to financial matters, conditions, and events that may occur in the future. The information and assumptions, including the Utility's budgets and information from Utility staff, were provided by sources we believe to be reliable.

While we believe the use of such information and assumptions is reasonable for the purpose of this transmittal, some assumptions will invariably not materialize as stated herein and may vary significantly due to unanticipated events and circumstances. Therefore, the actual results can be expected to vary from those projected to the extent that actual future conditions differ from those assumed by us or provided to us by others. Given that, the Utility should closely monitor future revenues, costs and capital plans to determine any significant variances from the results shown in this report and take appropriate management and City Council action to reconcile differences as needed.

SEWER RATE STUDY – APPENDIX A

SELECTED TABLES FROM THE FINANCIAL PLAN AND REVENUE REQUIREMENTS ANALYSIS

RATE REVENUE REQUIREMENTS SUMMARY	Budget	Projected								
	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
Sources of Sewer Funds										
Rate Revenue Under Prevailing Rates	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661
Industrial Waste Inspection Fees	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
Interest Earnings	202,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
Total Sources of Funds	**$ 7,612,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**	**$ 7,560,661**
Uses of Sewer Funds										
Operating Expenses:										
Personnel Services	$ 1,367,370	$ 1,394,717	$ 1,422,612	$ 1,451,064	$ 1,480,085	$ 1,509,687	$ 1,539,881	$ 1,570,678	$ 1,602,092	$ 1,634,134
Maintenance and Operations	4,491,105	4,815,687	4,673,457	4,881,332	5,029,487	5,182,625	5,340,929	5,504,585	5,673,787	5,848,738
Subtotal: Operating Expenses	$ 5,858,475	$ 6,210,405	$ 6,096,069	$ 6,332,396	$ 6,509,572	$ 6,692,312	$ 6,880,810	$ 7,075,263	$ 7,275,879	$ 7,482,872
Other Expenditures:										
Existing Debt Service	$ 1,606,800	$ 1,605,200	$ 1,603,000	$ 1,608,300	$ 1,605,650	$ 1,606,213	$ 1,607,213	$ 1,604,088	$ 1,603,838	$ 1,605,338
New Debt Service	-	-	-	-	-	-	-	-	-	-
Rate-Funded Capital Expenses	-	-	-	482,386	-	-	-	-	-	-
Total Uses of Sewer Funds	**$ 7,465,275**	**$ 7,815,605**	**$ 7,699,069**	**$ 8,423,082**	**$ 8,115,222**	**$ 8,298,525**	**$ 8,488,022**	**$ 8,679,351**	**$ 8,879,716**	**$ 9,088,209**
Forecasted Surplus (Deficiency) before Rate Increase	**$ 147,386**	**$ (254,944)**	**$ (138,408)**	**$ (862,421)**	**$ (554,561)**	**$ (737,864)**	**$ (927,361)**	**$ (1,118,690)**	**$ (1,319,056)**	**$ (1,527,548)**
Total Revenue Deficiency	$ -	$ 254,944	$ 138,408	$ 862,421	$ 554,561	$ 737,864	$ 927,361	$ 1,118,690	$ 1,319,056	$ 1,527,548
Increase/(Decrease) to Reserves	*$ -*	*$ 2,621*	*$ 276,824*	*$ 67,109*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*
Less: Revenue from Prior Rate Increases	$ -	$ -	$ (138,408)	$ (598,998)	$ (554,561)	$ (737,864)	$ (916,584)	$ (916,584)	$ (1,081,729)	$ (1,334,401)
Net Revenue Deficiency	**$ -**	**$ 257,565**	**$ 276,824**	**$ 330,532**	**$ -**	**$ -**	**$ 10,777**	**$ 202,105**	**$ 237,326**	**$ 193,147**
Calculation of Required Rate Increases										
Rate Revenue with No Rate Increase	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661	$ 7,340,661
plus: Revenue from Prior Rate Increases	-	-	293,626	598,998	916,584	916,584	916,584	916,584	1,081,729	1,334,401
Total Rate Revenue Before Rate Increase	$ 7,340,661	$ 7,340,661	$ 7,634,287	$ 7,939,659	$ 8,257,245	$ 8,257,245	$ 8,257,245	$ 8,257,245	$ 8,422,390	$ 8,675,062
Projected Annual Rate Increase [1]	**0.00%**	**4.00%**	**4.00%**	**4.00%**	**0.00%**	**0.00%**	**0.00%**	**2.00%**	**3.00%**	**2.00%**
Cumulative Increase from Annual Rate Increases	*0.00%*	*4.00%*	*8.16%*	*12.49%*	*12.49%*	*12.49%*	*12.49%*	*14.74%*	*18.18%*	*20.54%*
Impacts of Rate Increases										
Rate Revenues After Rate Increase [2]	$ 7,340,661	$ 7,702,828	$ 8,008,222	$ 8,325,831	$ 8,325,831	$ 8,325,831	$ 8,325,831	$ 8,492,348	$ 8,747,118	$ 8,922,061
Net Cash Flow After Rate Increase	147,386	38,683	460,590	54,163	362,023	178,720	(10,777)	(36,960)	15,345	(19,646)
Coverage After Rate Increase	1.09	1.02	1.29	1.33	1.23	1.11	0.99	0.98	1.01	0.99

1. In this iteration of the analysis, the rate increases target a total cash reserve balance of $4.5 million at the end of FY 2015/16.

2. Refer to Cost of Service Analysis for detailed calculations.

SOURCES & USES OF FUNDS FOR EXISTING CAPITAL NEEDS	Budget	Projected								
	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
Sources of Capital Funds										
Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Revolving Fund Loan	-	-	-	-	-	-	-	-	-	-
Revenue Bond	-	-	-	-	-	-	-	-	-	-
Surplus Capital Reserve	4,076,472	3,300,000	3,200,000	2,717,614	-	-	-	-	-	-
Rate Revenue	-	-	-	482,386	-	-	-	-	-	-
Total Sources of Capital Funds	**$ 4,076,472**	**$ 3,300,000**	**$ 3,200,000**	**$ 3,200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Uses of Capital Funds										
Funding of Capital Expenditures (Existing Needs)	$ 4,076,472	$ 3,300,000	$ 3,200,000	$ 3,200,000	$ -	$ -	$ -	$ -	$ -	$ -
Total Uses of Capital Funds	**$ 4,076,472**	**$ 3,300,000**	**$ 3,200,000**	**$ 3,200,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
Capital Funding Surplus (Deficiency)	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**

CAPITAL IMPROVEMENT PROGRAM	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16
Sewer Main Rehabilitation Project	$ 3,000,000	$ -	$ -	$ -
Sewer Main Point Repair, Manhole Rehabilitation, and Sewer Video	$ 100,000	$ 100,000	$ 100,000	$ 100,000
Sewer Pump Stations Improvement P-521	$ 100,000	$ 200,000	$ 100,000	$ 100,000
Jasmine Second Force Main Project	$ 100,000	$ -	$ -	$ -
Overland pipeline diversion (Construction)	$ 500,000	$ -	$ -	$ -
Hayden second force main Project	$ 100,000	$ -	$ -	$ -
2nd force main Braddock connection to Los Angeles	$ 150,000	$ -	$ -	$ -
New Pump Station Selmaraine	$ -	$ 3,000,000	$ -	$ -
New pipelines to divert Mesmer	$ -	$ -	$ 3,000,000	$ 3,000,000
New siphon at sewer convergences at Culver/Madison	$ -	$ -	$ -	$ -
Upsize Duquesne Sewer Pipe to 21 inch from Lucerne to Jefferson	$ -	$ -	$ -	$ -
Financial System Replacement/Enhancements	$ 26,472	$ -	$ -	$ -
Total: Project Costs	$ 4,076,472	$ 3,300,000	$ 3,200,000	$ 3,200,000

SUMMARY OF CASH ACTIVITY	Budget	Projected								
	FY 2012/13	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22
Total Estimated Beginning Cash	**$ 17,190,264**									
Operating Reserve										
Beginning Reserve Balance [1]	$ 1,479,650	$ 1,465,000	$ 1,503,683	$ 1,524,000	$ 1,578,163	$ 1,627,000	$ 1,673,000	$ 1,662,223	$ 1,625,263	$ 1,640,608
Plus: Net Cash Flow (After Rate Increases)	147,386	38,683	460,590	54,183	362,023	178,720	(10,777)	(36,960)	15,345	(19,646)
Plus: Transfer of Debt Reserve Surplus	1	-	-	-	-	-	-	-	-	-
Less: Transfers Out to Capital Replacement Reserve	(162,036)	-	(440,273)	-	(313,186)	(132,720)	-	-	-	-
Ending Operating Reserve Balance	***$ 1,465,000***	***$ 1,503,683***	***$ 1,524,000***	***$ 1,578,163***	***$ 1,627,000***	***$ 1,673,000***	***$ 1,662,223***	***$ 1,625,263***	***$ 1,640,608***	***$ 1,620,962***
Target Ending Balance (25% or 90 days of O&M)	*$ 1,465,000*	*$ 1,553,000*	*$ 1,524,000*	*$ 1,583,000*	*$ 1,627,000*	*$ 1,673,000*	*$ 1,720,000*	*$ 1,769,000*	*$ 1,819,000*	*$ 1,871,000*
Operating Reserve Surplus / (Deficit)	***$ -***	***$ (49,317)***	***$ -***	***$ (4,837)***	***$ -***	***$ -***	***$ (57,777)***	***$ (143,737)***	***$ (178,392)***	***$ (250,038)***
Capital Rehab & Replacement Reserve										
Beginning Reserve Balance [1]	$ 14,101,776	$ 10,187,340	$ 6,887,340	$ 4,127,614	$ 1,410,000	$ 1,723,186	$ 1,855,907	$ 1,855,907	$ 1,855,907	$ 1,855,907
Plus: Net Debt Proceeds	-	-	-	-	-	-	-	-	-	-
Plus: Transfer of Operating Reserve Surplus	162,036	-	440,273	-	313,186	132,720	-	-	-	-
Less: Use of Reserves for Capital Projects	(4,076,472)	(3,300,000)	(3,200,000)	(2,717,614)	-	-	-	-	-	-
Ending Repair & Replacement Balance	***$ 10,187,340***	***$ 6,887,340***	***$ 4,127,614***	***$ 1,410,000***	***$ 1,723,186***	***$ 1,855,907***	***$ 1,855,907***	***$ 1,855,907***	***$ 1,855,907***	***$ 1,855,907***
Target Ending Balance (3% of Assets)	*$ 1,250,000*	*$ 1,310,000*	*$ 1,360,000*	*$ 1,410,000*	*$ 1,370,000*	*$ 1,330,000*	*$ 1,290,000*	*$ 1,250,000*	*$ 1,210,000*	*$ 1,180,000*
Capital Rehab & Replacement Surplus / (Deficit)	***$ 8,937,340***	***$ 5,577,340***	***$ 2,767,614***	***$ -***	***$ 353,186***	***$ 525,907***	***$ 565,907***	***$ 605,907***	***$ 645,907***	***$ 675,907***
Debt Reserve										
Beginning Reserve Balance [1]	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838	$ 1,608,838
Plus: Reserve Funding from New Debt Obligations	-	-	-	-	-	-	-	-	-	-
Less: Transfer of Surplus to Operating Reserve	(1)	-	-	-	-	-	-	-	-	-
Ending Debt Reserve Balance	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***	***$ 1,608,838***
Target Ending Balance	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*	*$ 1,608,838*
Debt Reserve Surplus / (Deficit)	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***	***$ -***
Debt Coverage Ratio (After Rate Increase)	*1.09*	*1.02*	*1.29*	*1.33*	*1.23*	*1.11*	*0.99*	*0.98*	*1.01*	*0.99*
Ending Cash Balance - All Reserves	$ 13,261,178	$ 9,999,861	$ 7,260,451	$ 4,597,000	$ 4,959,024	$ 5,137,744	$ 5,126,967	$ 5,090,007	$ 5,105,352	$ 5,085,706
Recommended Target Ending Balance - All Reserves	$ 4,323,838	$ 4,471,838	$ 4,492,838	$ 4,601,838	$ 4,605,838	$ 4,611,838	$ 4,618,838	$ 4,627,838	$ 4,637,838	$ 4,659,838
Ending Surplus/(Deficit)	$ 8,937,340	$ 5,528,023	$ 2,767,614	$ (4,837)	$ 353,186	$ 525,907	$ 508,130	$ 462,169	$ 467,514	$ 425,868

Total Minimum Reserves Recommended in this study: *25%, or 90 days of O&M expenses, plus 3% of Net Assets, plus the debt reserve requirement which is equal to the maximum annual debt service payment.*
For reference purposes, the total Minimum Reserves Per Existing City Policy: *70% of annual operations budget, plus two years of debt service payments, plus the annual capital improvements budget.*

1. *For purposes of this analysis, it is assumed that available cash can be deposited into distinct Operating, Capital and Debt Reserve Funds. Accordingly, the total beginning cash balance of $17,190,264 has been segregated as follows: $1,479,650 has been assigned as the beginning cash balance in the Operating Fund, $14,101,776 has been assigned as the beginning cash balance in the Capital Reserve and $1,608,838 has been assigned as the beginning Debt Reserve balance. No fund have been assigned to the Developer Impact Fee Fund, because the City has no funds set aside for this fund currently.*

SEWER RATE STUDY – APPENDIX B

SELECTED TABLES FROM THE COST-OF-SERVICE ANALYSIS

Classification of Expenses

Budget Categories	Total Revenue Requirements	Flow	Strength		Customer Actual	Basis of Classification			
	2013	(VOL)	(BOD)	(TSS)	(CA)	(VOL)	(BOD)	(TSS)	(CA)
Personnel Services									
Regular Salaries	$ 846,544	$ 338,618	$ 126,982	$ 126,982	$ 253,963	40%	15%	15%	30%
Part-Time Salaries	$ 25,000	$ 10,000	$ 3,750	$ 3,750	$ 7,500	40%	15%	15%	30%
Overtime Pay	$ 15,912	$ 6,365	$ 2,387	$ 2,387	$ 4,774	40%	15%	15%	30%
Deferred Compensation	$ 12,763	$ 5,105	$ 1,914	$ 1,914	$ 3,829	40%	15%	15%	30%
Social Security	$ 65,847	$ 26,339	$ 9,877	$ 9,877	$ 19,754	40%	15%	15%	30%
Retirement	$ 134,715	$ 53,886	$ 20,207	$ 20,207	$ 40,415	40%	15%	15%	30%
Deferred Retirement	$ 18,530	$ 7,412	$ 2,780	$ 2,780	$ 5,559	40%	15%	15%	30%
Workers Compensation	$ 69,286	$ 27,714	$ 10,393	$ 10,393	$ 20,786	40%	15%	15%	30%
Group Insurance	$ 151,154	$ 60,462	$ 22,673	$ 22,673	$ 45,346	40%	15%	15%	30%
Retiree Health Savings	$ 5,200	$ 2,080	$ 780	$ 780	$ 1,560	40%	15%	15%	30%
Retiree Insurance	$ 15,973	$ 6,389	$ 2,396	$ 2,396	$ 4,792	40%	15%	15%	30%
Retiree Medical Pre-funding	$ -	$ -	$ -	$ -	$ -	40%	15%	15%	30%
State Disability Insurance	$ 2,546	$ 1,018	$ 382	$ 382	$ 764	40%	15%	15%	30%
Health Benefits	$ 500	$ 200	$ 75	$ 75	$ 150	40%	15%	15%	30%
Longevity Pay	$ -	$ -	$ -	$ -	$ -	40%	15%	15%	30%
Uniform Allowance	$ 3,400	$ 1,360	$ 510	$ 510	$ 1,020	40%	15%	15%	30%
Total Personnel Services	**$ 1,367,370**	**$ 546,948**	**$ 205,106**	**$ 205,106**	**$ 410,211**				
Maintenance & Operations									
Office Expense	$ 1,000	$ -	$ -	$ -	$ 1,000	0%	0%	0%	100%
Printing & Binding	$ 2,000	$ -	$ -	$ -	$ 2,000	0%	0%	0%	100%
Postage & Delivery	$ 10,000	$ -	$ -	$ -	$ 10,000	0%	0%	0%	100%
Communications	$ 7,100	$ -	$ -	$ -	$ 7,100	0%	0%	0%	100%
Utilities	$ 76,000	$ 68,400	$ -	$ -	$ 7,600	90%	0%	0%	10%
Departmental Special Supplies	$ 30,310	$ 27,279	$ -	$ -	$ 3,031	90%	0%	0%	10%
Small Tools & Equipment	$ 10,000	$ 9,000	$ -	$ -	$ 1,000	90%	0%	0%	10%
Training & Education	$ 6,690	$ -	$ -	$ -	$ 6,690	0%	0%	0%	100%
Conferences & Conventions	$ 3,400	$ -	$ -	$ -	$ 3,400	0%	0%	0%	100%
Special Events & Meetings	$ 3,500	$ -	$ -	$ -	$ 3,500	0%	0%	0%	100%
Memberships & Dues	$ 2,000	$ -	$ -	$ -	$ 2,000	0%	0%	0%	100%
Contributions to Agencies (1)	$ 2,272,000	$ 1,272,320	$ 522,560	$ 477,120	$ -	56%	23%	21%	0%
R&M - Equipment	$ 88,000	$ 35,200	$ 13,200	$ 13,200	$ 26,400	40%	15%	15%	30%
Garage Expenses	$ 95,000	$ 38,000	$ 14,250	$ 14,250	$ 28,500	40%	15%	15%	30%
Rental of Land	$ 360,000	$ 324,000	$ -	$ -	$ 36,000	90%	0%	0%	10%
Amortization of Equipment	$ 33,412	$ 30,071	$ -	$ -	$ 3,341	90%	0%	0%	10%
Med Services - DMV Certificate	$ -	$ -	$ -	$ -	$ -	90%	0%	0%	10%
Med Services - Special Examina	$ 400	$ 360	$ -	$ -	$ 40	90%	0%	0%	10%
Refuse Disp Services - Other	$ -	$ -	$ -	$ -	$ -	90%	0%	0%	10%
Other Contractual Services	$ 733,316	$ 659,984	$ -	$ -	$ 73,332	90%	0%	0%	10%
Insurance Premiums - Other	$ 7,680	$ 6,912	$ -	$ -	$ 768	90%	0%	0%	10%
Liability Reserve Charge	$ 28,300	$ 25,470	$ -	$ -	$ 2,830	90%	0%	0%	10%
Depreciation	$ -	$ -	$ -	$ -	$ -	90%	0%	0%	10%
Improvements other than Bldg.	$ -	$ -	$ -	$ -	$ -	100%	0%	0%	0%
Auto - Rolling Stock & Equipment	$ *43,900*	$ 21,950	$ -	$ -	$ 21,950	50%	0%	0%	50%
IT Equipment - Hardware	$ *21,613*	$ 2,161	$ -	$ -	$ 19,452	10%	0%	0%	90%
Administrative Charges	$ 655,484	$ 65,548	$ -	$ -	$ 589,936	10%	0%	0%	90%
Total Maintenance & Operations	**$ 4,491,105**	**$ 2,586,656**	**$ 550,010**	**$ 504,570**	**$ 849,869**				
Total Operating Expenses	***$ 5,858,475***	***$ 3,133,604***	***$ 755,116***	***$ 709,676***	***$ 1,260,080***				
Allocation of Operating Expenses	***100%***	***53%***	***13%***	***12%***	***22%***				
Debt Service Payments									
2009 Series A Revenue Bonds:	$ 1,606,800	$ 803,400	$ 401,700	$ 401,700	$ -	50%	25%	25%	0%
TOTAL USES OF SEWER FUNDS	**$ 7,465,275**	**$ 3,937,004**	**$ 1,156,816**	**$ 1,111,376**	**$ 1,260,080**	**53%**	**16%**	**15%**	**17%**
Less Non-Rate Revenues									
(less) Industrial Waste Inspection Fees	$ (70,000)	$ (37,442)	$ (9,022)	$ (8,480)	$ (15,056)	53%	13%	12%	22%
(less) Interest Earnings	$ (202,000)	$ (108,047)	$ (26,036)	$ (24,470)	$ (43,448)	53%	13%	12%	22%
NET REVENUE REQUIREMENTS	**$ 7,193,275**	**$ 3,791,515**	**$ 1,121,757**	**$ 1,078,426**	**$ 1,201,577**				
Allocation of Revenue Requirements	***100%***	***53%***	***16%***	***15%***	***17%***				

Classification of Expenses (cont.)

Adjustments to Classification of Expenses

Adjustment for Current Rate Level:	Total	(VOL)	(BOD)	(TSS)	(CA)
2013 Net Revenue Requirement	*$7,193,275*				
Current Level of Rate Revenue	*$7,545,151*				
Adjustment Factor	*1.0489*				
Adjusted Net Revenue Req'ts	**$ 7,545,151**	**$ 3,976,986**	**$ 1,176,630**	**$ 1,131,180**	**$ 1,260,354**

1. Estimated Volumetric, BOD/TSS strength factors are from the City's 2003/04 Engineer's Report (Table 4).

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Allocation of Revenue Requirements

Classification Components	Net Revenue Requirements[1]	Customer Classes						
		101 Single-Family	102 Multi-Family	200 Commercial/ Business	300 Commercial/ Restaurants	400 Institutional	500 Schools/ Public	600 Commercial/ Hotels
Volume	$ 3,976,986	$962,013	$1,522,095	$888,087	$225,777	$113,140	$7,444	$258,430
Treatment								
- BOD	$ 1,176,630	$246,676	$390,290	$227,720	$188,523	$37,194	$1,273	$84,956
- TSS	$ 1,131,180	$239,608	$379,107	$221,195	$202,890	$16,011	$1,053	$71,316
Customer-Related	$ 1,260,354	$544,013	$587,925	$102,998	$15,649	$5,406	$1,043	$3,319
Direct Assignment	$ -	$0	$0	$0	$0	$0	$0	$0
Net Revenue Requirement	$ 7,545,151	$1,992,310	$2,879,417	$1,440,000	$632,840	$171,751	$10,814	$418,020

1. These revenue requirements have been adjusted to meet the City's current revenue collected from sewer rates.

Proposed 2012-13 Sewer Rate Revenue - Base and Commodity Charges

Customer Data		New Base Charges	Commodity Rates		Annual Rate Revenue			Target Rev. Reqts[2]	
Customer Class	No. of Parcels/ Dwelling Units		Adjusted[1] 2010 Consumption	New Rate (\$/hcf)	New Base Charges	Commodity Charges	Total Annual Revenue	Current Rate Revenue	COS Rev. Reqts
101 Single-Family*	5,736	$42.32	401,513	$3.85	$242,748	$1,545,823	$1,788,571	$1,788,571	$1,992,310
102 Multi-Family+	11,092	$41.80	635,272	$3.80	$463,650	$2,415,767	$2,879,417	$2,915,211	$2,879,417
200 Commercial/Business*	1,086	$41.37	370,656	$3.76	$44,930	$1,395,070	$1,440,000	$1,472,993	$1,440,000
300 Commercial/Restaurants*	165	$36.89	94,232	$6.65	$6,087	$626,753	$632,840	$725,973	$632,840
400 Institutional*	57	$40.50	47,221	$3.59	$2,306	$169,443	$171,751	$179,491	$171,751
500 Schools/Public*	11	$42.32	3,107	$3.26	$466	$10,129	$10,594	$10,594	$10,814
600 Special								$452,318	$418,020
601 Special*	6	$39.11	16,417	$3.79	$235	$62,206	$62,441	$67,564	$62,441
602 Special*	2	$39.11	13,210	$4.94	$78	$65,315	$65,393	$70,758	$65,393
603 Special*	1	$39.11	12,221	$4.94	$39	$60,425	$60,464	$65,425	$60,464
604 Special*	2	$39.11	20,236	$3.47	$78	$70,131	$70,209	$75,970	$70,209
605 Special*	5	$39.11	23,082	$2.97	$196	$68,475	$68,671	$74,305	$68,671
606 Special*	1	$39.11	16,601	$4.94	$39	$82,081	$82,120	$88,858	$82,120
607 Special*	1	$39.03	49	$3.55	$39	$174	$213	$231	$213
608 Special*	1	$39.10	281	$4.55	$39	$1,280	$1,319	$1,428	$1,319
609 Special*	6	$39.11	613	$3.56	$235	$2,181	$2,416	$2,614	$2,416
610 Special*	1	$39.12	1,149	$0.71	$39	$818	$857	$927	$857
612 Special*	7	$39.11	1,632	$0.36	$274	$586	$862	$933	$862
613 Special*	1	$39.09	1,571	$0.36	$39	$566	$605	$655	$605
614 Special*	1	$39.12	798	$3.02	$39	$2,412	$2,451	$2,652	$2,451
Totals	18,182	--	1,659,863	--	$761,557	$6,579,637	$7,341,194	$7,545,151	$7,545,151
% of Total					10.4%	89.6%	100.0%		

* Parcels. + Dwelling Units.

1. Adjusted for irrigation factors.

2. Cost-of-Service (COS) analysis indicates some classes should be reduced. The "Target Rev. Reqts" are the lesser of Current or COS Revenue Requirement (which are highlighted in yellow).

Existing 2011-12 Sewer Rates and Rate Revenue					
Customer Class	Sewer Rates		Annual Rate Revenue		
	Base Charges ($/yr)	Commodity Rate ($/hcf)	Base Charges	Commodity Rates	Total Annual Revenue
101 Single-Family	$42.32	$3.85	$242,748	$1,545,823	$1,788,571
102 Multi-Family	$42.32	$3.85	$469,413	$2,445,798	$2,915,211
200 Commercial/Business	$42.32	$3.85	$45,960	$1,427,033	$1,472,993
300 Commercial/Restaurants	$42.32	$7.63	$6,983	$718,990	$725,973
400 Institutional	$42.32	$3.75	$2,412	$177,079	$179,491
500 Schools/Public	$42.32	$3.26	$466	$10,129	$10,594
601 Special	$42.32	$4.10	$254	$67,310	$67,564
602 Special	$42.32	$5.35	$85	$70,674	$70,758
603 Special	$42.32	$5.35	$42	$65,382	$65,425
604 Special	$42.32	$3.75	$85	$75,885	$75,970
605 Special	$42.32	$3.21	$212	$74,093	$74,305
606 Special	$42.32	$5.35	$42	$88,815	$88,858
607 Special	$42.32	$3.85	$42	$189	$231
608 Special	$42.32	$4.93	$42	$1,385	$1,428
609 Special	$42.32	$3.85	$254	$2,360	$2,614
610 Special	$42.32	$0.77	$42	$885	$927
612 Special	$42.32	$0.39	$296	$636	$933
613 Special	$42.32	$0.39	$42	$613	$655
614 Special	$42.32	$3.27	$42	$2,609	$2,652
Total			$769,462	$6,775,689	$7,545,151
% of Total			10%	90%	100%

New 2012-13 Sewer Rates Incorporating COS Revenue Requirements					
Customer Class	Adjusted[1] Sewer Rates		Annual Rate Revenue		
	Base Charges ($/yr)	Commodity Rate ($/hcf)	Base Charges	Commodity Rates	Total Annual Revenue
101 Single-Family	$42.32	$3.85	$242,748	$1,545,823	$1,788,571
102 Multi-Family	$41.80	$3.80	$463,650	$2,415,767	$2,879,417
200 Commercial/Business	$41.37	$3.76	$44,930	$1,395,070	$1,440,000
300 Commercial/Restaurants	$36.89	$6.65	$6,087	$626,753	$632,840
400 Institutional	$40.50	$3.59	$2,308	$169,443	$171,751
500 Schools/Public	$42.32	$3.26	$466	$10,129	$10,594
601 Special	$39.11	$3.79	$235	$62,206	$62,441
602 Special	$39.11	$4.94	$78	$65,315	$65,393
603 Special	$39.11	$4.94	$39	$60,425	$60,464
604 Special	$39.11	$3.47	$78	$70,131	$70,209
605 Special	$39.11	$2.97	$196	$68,475	$68,671
606 Special	$39.11	$4.94	$39	$82,081	$82,120
607 Special	$39.03	$3.55	$39	$174	$213
608 Special	$39.10	$4.55	$39	$1,280	$1,319
609 Special	$39.11	$3.56	$235	$2,181	$2,416
610 Special	$39.12	$0.71	$39	$818	$857
612 Special	$39.11	$0.36	$274	$588	$862
613 Special	$39.09	$0.36	$39	$566	$605
614 Special	$39.12	$3.02	$39	$2,412	$2,451
Total			$761,557	$6,579,637	$7,341,194
% of Total			*10%*	*90%*	*100%*

1. Adjustments to base charges and commodity rates were made to generate the Target Revenue Requirements, including reductions in most customer classes based on the cost-of-service analysis results.

Projected Sewer Revenue Requirements -
Including Rate Increases and COS Adjustments to Single-Family and Code 500 Customers

Customer Class	Total Annual '11-12 Rate Revenue	One-Third of COS Rev. Reqt. Adjustment[1]	Total Annual Rate Revenue		
			2013-14	2014-15	2015-16
Projected Rate Increase			*4.0%*	*4.0%*	*4.0%*
101 Single-Family	$1,788,571	$67,913	$1,928,027	$2,002,431	$2,079,812
102 Multi-Family	$2,879,417	*N.A.*	$2,994,594	$3,114,377	$3,238,953
200 Commercial/Business	$1,440,000	*N.A.*	$1,497,600	$1,557,504	$1,619,804
300 Commercial/Restaurants	$632,840	*N.A.*	$658,154	$684,480	$711,859
400 Institutional	$171,751	*N.A.*	$178,621	$185,766	$193,197
500 Schools/Public	$10,594	$73	$11,091	$11,532	$11,990
601 Special	$62,441	*N.A.*	$64,939	$67,536	$70,238
602 Special	$65,393	*N.A.*	$68,009	$70,729	$73,558
603 Special	$60,464	*N.A.*	$62,883	$65,398	$68,014
604 Special	$70,209	*N.A.*	$73,017	$75,938	$78,976
605 Special	$68,671	*N.A.*	$71,418	$74,275	$77,246
606 Special	$82,120	*N.A.*	$85,405	$88,821	$92,374
607 Special	$213	*N.A.*	$222	$230	$240
608 Special	$1,319	*N.A.*	$1,372	$1,427	$1,484
609 Special	$2,416	*N.A.*	$2,513	$2,613	$2,718
610 Special	$857	*N.A.*	$891	$927	$964
612 Special	$862	*N.A.*	$896	$932	$970
613 Special	$605	*N.A.*	$629	$654	$681
614 Special	$2,451	*N.A.*	$2,549	$2,651	$2,757
Total	**$7,341,194**	**$67,986**	**$7,702,828**	**$8,008,222**	**$8,326,831**

1. This is added to the revenue requirements for these class in each of the next 3 years.

Proposed 2013-14 Sewer Rates Incorporating COS Revenue Requirements *Including Rate COS-Adjusted Allocations to Base Charges and Commodity Rates*					
Customer Class	Base Charges[1] ($/yr)	Commodity Rates[2] ($/hcf)	Total Annual Rate Revenue[3]		
			From Base Charges[1]	From Commodity Rates[2]	Total Annual Revenue[3]
101 Single-Family	$254.24	$1.17	$1,458,327	$469,700	$1,928,027
102 Multi-Family[4]	$202.97	$1.17	$2,251,326	$743,268	$2,994,594
200 Commercial/Business	$254.24	$3.30	$276,106	$1,221,494	$1,497,600
300 Commercial/Restaurants	$254.24	$6.54	$41,950	$616,204	$658,154
400 Institutional	$254.24	$3.48	$14,492	$164,129	$178,621
500 Schools/Public	$254.24	$2.67	$2,797	$8,294	$11,091
601 Special	$254.24	$3.86	$1,525	$63,414	$64,939
602 Special	$254.24	$5.11	$508	$67,501	$68,009
603 Special	$254.24	$5.12	$254	$62,629	$62,883
604 Special	$254.24	$3.58	$508	$72,509	$73,017
605 Special	$254.24	$3.04	$1,271	$70,147	$71,418
606 Special	$254.24	$5.13	$254	$85,151	$85,405
607 Special	$222.00	$0.00	$222	$0	$222
608 Special	$254.24	$3.98	$254	$1,118	$1,372
609 Special	$254.24	$1.61	$1,525	$988	$2,513
610 Special	$254.24	$0.55	$254	$637	$891
612 Special	$128.07	$0.00	$896	$0	$896
613 Special	$254.24	$0.24	$254	$375	$629
614 Special	$254.24	$2.88	$254	$2,295	$2,549
Total			$4,052,980	$3,649,852	$7,702,828
% of Total			*53%*	*47%*	*100%*

1. The base charges reflect residential classes but are adjusted to overall collect 60% of all revenues.

2. Commodity charges are individually adjusted for each customer class to meet COS revenue requirements.

3. The total rate revenue collected from each customer class are the cost-of-service (COS) revenue requirement.

4. Multi-Family base charges are 80% of Single-Family base charges based on the differences in per unit water consumption. Multi-Family commodity rates are also adjusted to meet the revenue requirements for this class.

Proposed 2014-15 Sewer Rates Incorporating COS Revenue Requirements *Including Rate COS-Adjusted Allocations to Base Charges and Commodity Rates*					
Customer Class	Base Charges[1] *($/yr)*	Commodity Rates[2] *($/hcf)*	Total Annual Rate Revenue[3]		
			From Base Charges[1]	From Commodity Rates[2]	Total Annual Revenue[3]
101 Single-Family	$264.32	$1.21	$1,516,146	$486,285	$2,002,431
102 Multi-Family[4]	$211.48	$1.21	$2,345,698	$768,679	$3,114,377
200 Commercial/Business	$264.32	$3.43	$287,053	$1,270,451	$1,557,504
300 Commercial/Restaurants	$264.32	$6.80	$43,613	$640,867	$684,480
400 Institutional	$264.32	$3.61	$15,066	$170,700	$185,766
500 Schools/Public	$264.32	$2.78	$2,908	$8,624	$11,532
601 Special	$264.32	$4.02	$1,586	$65,950	$67,536
602 Special	$264.32	$5.31	$529	$70,200	$70,729
603 Special	$264.32	$5.33	$264	$65,134	$65,398
604 Special	$264.32	$3.73	$529	$75,409	$75,938
605 Special	$264.32	$3.16	$1,322	$72,953	$74,275
606 Special	$264.32	$5.33	$264	$88,557	$88,821
607 Special	$230.00	$0.00	$230	$0	$230
608 Special	$264.32	$4.14	$264	$1,163	$1,427
609 Special	$264.32	$1.68	$1,586	$1,027	$2,613
610 Special	$264.32	$0.58	$264	$663	$927
612 Special	$133.19	$0.00	$932	$0	$932
613 Special	$264.32	$0.25	$264	$390	$654
614 Special	$264.32	$2.99	$264	$2,387	$2,651
Total			**$4,218,782**	**$3,789,440**	**$8,008,222**
% of Total			*53%*	*47%*	*100%*

1. *The base charges reflect residential classes but are adjusted to overall collect 60% of all revenues.*
2. *Commodity charges are individually adjusted for each customer class to meet COS revenue requirements.*
3. *The total rate revenue collected from each customer class are the cost-of-service (COS) revenue requirement.*
4. *Multi-Family base charges are 80% of Single-Family base charges based on the differences in per unit water consumption. Multi-Family commodity rates are also adjusted to meet the revenue requirements for this class.*

Proposed 2015-16 Sewer Rates Incorporating COS Revenue Requirements *Including Rate COS-Adjusted Allocations to Base Charges and Commodity Rates*					
Customer Class	Base Charges[1] *($/yr)*	Commodity Rates[2] *($/hcf)*	Total Annual Rate Revenue[3]		
			From Base Charges[1]	From Commodity Rates[2]	Total Annual Revenue[3]
101 Single-Family	$274.80	$1.25	$1,576,276	$503,536	$2,079,812
102 Multi-Family[4]	$220.42	$1.25	$2,444,863	$794,090	$3,238,953
200 Commercial/Business	$274.80	$3.56	$298,437	$1,321,367	$1,619,804
300 Commercial/Restaurants	$274.80	$7.07	$45,343	$666,516	$711,859
400 Institutional	$274.80	$3.76	$15,664	$177,533	$193,197
500 Schools/Public	$274.80	$2.89	$3,023	$8,967	$11,990
601 Special	$274.80	$4.18	$1,649	$68,589	$70,238
602 Special	$274.80	$5.53	$550	$73,008	$73,558
603 Special	$274.80	$5.54	$275	$67,739	$68,014
604 Special	$274.80	$3.88	$550	$78,426	$78,976
605 Special	$274.80	$3.29	$1,374	$75,872	$77,246
606 Special	$274.80	$5.55	$275	$92,099	$92,374
607 Special	$240.00	$0.00	$240	$0	$240
608 Special	$274.80	$4.30	$275	$1,209	$1,484
609 Special	$274.80	$1.74	$1,649	$1,069	$2,718
610 Special	$274.80	$0.60	$275	$689	$964
612 Special	$138.52	$0.00	$970	$0	$970
613 Special	$274.80	$0.26	$275	$406	$681
614 Special	$274.80	$3.11	$275	$2,482	$2,757
Total			**$4,392,235**	**$3,933,600**	**$8,325,831**
% of Total			*53%*	*47%*	*100%*

1. The base charges reflect residential classes but are adjusted to overall collect 60% of all revenues.

2. Commodity charges are individually adjusted for each customer class to meet COS revenue requirements.

3. The total rate revenue collected from each customer class are the cost-of-service (COS) revenue requirement.

4. Multi-Family base charges are 80% of Single-Family base charges based on the differences in per unit water consumption. Multi-Family commodity rates are also adjusted to meet the revenue requirements for this class.

ALLOCATION OF OPERATING EXPENSE FORECAST[1]:			Allocation %'s		Allocation $'s	
			Fixed	Variable	Fixed	Variable
		Results of Analysis Below:	63.4%	36.6%	$ 4,736,663	$ 2,728,612
Personnel Services		2013				
411100	Regular Salaries	$ 846,544	100%		$ 846,544	$ -
411200	Part-Time Salaries	25,000	100%		$ 25,000	$ -
411300	Overtime Pay	15,912	100%		$ 15,912	$ -
431000	Deferred Compensation	12,763	100%		$ 12,763	$ -
432000	Social Security	65,847	100%		$ 65,847	$ -
433000	Retirement	134,715	100%		$ 134,715	$ -
433500	Deferred Retirement	18,530	100%		$ 18,530	$ -
434000	Workers Compensation	69,286	100%		$ 69,286	$ -
435000	Group Insurance	151,154	100%		$ 151,154	$ -
435400	Retiree Health Savings	5,200	100%		$ 5,200	$ -
435500	Retiree Insurance	15,973	100%		$ 15,973	$ -
436000	State Disability Insurance	2,546	100%		$ 2,546	$ -
437000	Health Benefits	500	100%		$ 500	$ -
440000	Uniform Allowance	3,400	100%		$ 3,400	$ -
Total: Personnel Services		**$ 1,367,370**				
Maintenance & Operations						
512100	Office Expense	$ 1,000	100%		$ 1,000	$ -
512200	Printing & Binding	2,000	100%		$ 2,000	$ -
512299	Postage & Delivery	10,000	100%		$ 10,000	$ -
512400	Communications	7,100	100%		$ 7,100	$ -
513000	Utilities	76,000		100%	$ -	$ 76,000
514100	Departmental Special Supplies	30,310	100%		$ 30,310	$ -
514600	Small Tools & Equipment	10,000	100%		$ 10,000	$ -
516100	Training & Education	6,690	100%		$ 6,690	$ -
516500	Conferences & Conventions	3,400	100%		$ 3,400	$ -
516600	Special Events & Meetings	3,500	100%		$ 3,500	$ -
516700	Memberships & Dues	2,000	100%		$ 2,000	$ -
517500	Contributions to Agencies (5)	2,272,000		100%	$ -	$ 2,272,000
600200	R&M - Equipment	88,000	100%		$ 88,000	$ -
600800	Garage Expenses	95,000	100%		$ 95,000	$ -
605200	Rental of Land	360,000	100%		$ 360,000	$ -
605400	Amortization of Equipment	33,412		100%	$ -	$ 33,412
614500	Med Services - Special Examina	400	100%		$ 400	$ -
619800	Other Contractual Services	733,316	75%	25%	$ 549,987	$ 183,329
650200	Insurance Premiums - Other	7,680	100%		$ 7,680	$ -
650300	Liability Reserve Charge	28,300	100%		$ 28,300	$ -
732100	Auto - Rolling Stock & Equipment	43,900	100%		$ 43,900	$ -
732150	IT Equipment - Hardware	21,613	100%		$ 21,613	$ -
670100	Administrative Charges	655,484	75%	25%	$ 491,613	$ 163,871
Total: Maintenance & Operations		**$ 4,491,105**				
Debt Service						
2009 Series A Revenue Bonds:		**$ 1,606,800**	100%		$ 1,606,800	$ -
Grand Total: Revenue Requirement		**$ 7,465,275**			**$ 4,736,663**	**$ 2,728,612**

1. This table is used only to evaluate the total percentage of costs that are fixed vs. variable, for rate design purposes.

Development of the Volume Allocation Factor					
Customer Class	Est. 2010 Volume[1] (ccf)	% of 2010 Volume *(Unadjusted)*	Adjusted[2] Volume	Adjusted Vol. Total (ccf)	Percent of Adjusted Vol.
101 Single-Family	692,263	33.6%	401,513	435,675	24.2%
102 Multi-Family	747,379	36.2%	635,272	689,323	38.3%
200 Commercial/Business	370,658	18.0%	370,658	402,195	22.3%
300 Commercial/Restaurants	94,232	4.6%	94,232	102,250	5.7%
400 Institutional	47,221	2.3%	47,221	51,239	2.8%
500 Schools/Public	3,107	0.2%	3,107	3,371	0.2%
600 Commercial/Hotels	107,860	5.2%	107,860	117,037	6.5%
Total	2,062,720	100.0%	1,659,863	1,801,090	100.0%
			Target Total[3] (ccf):	*1,801,090*	
			Avg. Annual Culver City Flow[4] (MGD)	*3.6910*	

1. City-provided water use data (2011/12 Sewer User Charges, Summary by User code).
2. Single- and Multi-Family adjustments reflect landscape-irrigation factors.
3. Total effluent from L.A. Hyperion records (effluent flow meters).
4. From flow meter data for April 1, 2010 to March 31, 2011. Email from Public Works Dept, March 29, 2012.

Development of the Customer Allocation Factor			
Customer Class	Number of Accounts	Adjusted (if needed)	Percent of Total
101 Single-Family	5,736	5,736	43.16%
102 Multi-Family	6,199	6,199	46.65%
200 Commercial/Business	1,086	1,086	8.17%
300 Commercial/Restaurants	165	165	1.24%
400 Institutional	57	57	0.43%
500 Schools/Public	11	11	0.08%
600 Commercial/Hotels	35	35	0.26%
Total	13,289	13,289	100%

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Development of the Strength Allocation Factor

Customer Class	Adjusted Annual Flow (ccf)[1]	Biochemical Oxygen Demand (BOD)				Total Suspended Solids (TSS)			
		Avg Strength Factor[2] (mg/l)	Calculated BOD (lb/yr)	Adjusted BOD (lb/yr)	Percent of Total	Avg Strength Factor[2] (mg/l)	Calculated TSS (lb/yr)	Adjusted TSS (lb/yr)	Percent of Total
101 Single-Family	435,675	195	529,986	529,986	20.96%	176	478,347	478,347	21.18%
102 Multi-Family	689,323	195	838,543	838,543	33.17%	176	756,839	756,839	33.51%
200 Commercial/Business	402,195	195	489,259	489,259	19.35%	176	441,588	441,588	19.55%
300 Commercial/Restaurants	102,250	635	405,045	405,045	16.02%	635	405,045	405,045	17.94%
400 Institutional	51,239	250	79,911	79,911	3.16%	100	31,964	31,964	1.42%
500 Schools/Public	3,371	130	2,734	2,734	0.11%	100	2,103	2,103	0.09%
600 Commercial/Hotels[3]	117,037	250	182,529	182,529	7.22%	195	142,372	142,372	6.30%
Total	1,801,090	–	2,528,007	2,528,007	100%	–	2,258,258	2,258,258	100%

1. Reflects irrigation credits for single-and multi-family classes.
2. Estimated BOD/TSS strength factors are from the City's 2003/04 Engineer's Report (Table 2).
3. Estimated BOD/TSS from City's 2003/04 Engineer's Report (Table 2):