



City of Fort Lauderdale

UTILITY RATE STUDY --- Final Draft Report ---



May 13, 2009

BURTON & ASSOCIATES

Utility Economics

BURTON & ASSOCIATES

May 13, 2009

Mr. Albert Carbon
Public Works Director
City of Fort Lauderdale
949 N.W. 38th Street
Fort Lauderdale, FL 33309

Re: Utility Rate Study – Final Draft Report

Dear Mr. Carbon:

Burton & Associates is pleased to present this Final Draft Report of the Utility Rate Study that we have performed for the City of Fort Lauderdale's Water & Sewer Systems.

The report includes recommendations for the establishment of cost of service based rates that will ensure the City can continue to meet its financial obligations while maintaining a sound financial position. The rates are also designed to complement the City's efforts to promote the efficient and sustainable use and management of the community's essential water resources.

We appreciate the fine assistance provided by you and all members of your staff who participated in the study. It has been a pleasure to be of assistance to the City, and if you have any questions or comments regarding the report, please do not hesitate to call me at (904) 247-0787.

Very truly yours,



Andrew J. Burnham
Senior Vice President

AJB/cs
Enclosure

**UTILITY RATE STUDY
TABLE OF CONTENTS**

Section	Page
Executive Summary	i
Section I - Rate Study Overview	1
A. Background	1
B. Scope	1
C. Study Procedures	2
Section II - Revenue Sufficiency Analysis	4
A. Introduction	4
1. Objective and Scope	4
2. Revenue Sufficiency Analysis Study Procedures	5
B. Revenue Sufficiency Analysis Results	6
1. Description of the Analysis	7
a. System Revenues	7
b. Revenue Requirements	8
c. Financial Management Program	8
2. Assumptions of the Revenue Sufficiency Analysis	10
a. Revenues and Expenses	10
b. Cost Escalation	10
c. Borrowing Assumptions	10
d. Interest Earnings on Invested Funds	11
e. Growth	11
f. Price Elasticity	11
g. Minimum Operating & Capital Fund Balances	12
h. Capital Projects Funding	12
i. Debt Service Coverage	12

**UTILITY RATE STUDY
TABLE OF CONTENTS**

Section	Page
3. Results of the Revenue Sufficiency Analysis	13
a. Financial Management Program Rate Revenue Adjustment Plan	13
b. Supporting Analysis	15
C. Revenue Sufficiency Analysis Conclusions and Recommendations	16
1. Revenue Sufficiency Analysis Conclusions	16
2. Revenue Sufficiency Analysis Recommendations	17
Section III - Rate Structure Analysis	18
A. Analysis of the Current User Charge Rate Structure	18
1. Allocation of Costs	18
2. Water Rates	18
a. Water Fixed Monthly Charge	18
b. Water Usage Rates	20
3. Sewer Rates	23
a. Sewer Fixed Monthly Charge	23
b. Sewer Usage Rates	24
4. Price Elasticity	25
B. Schedule of Rates with Rate Structure Modifications	27
C. Customer Impact Analysis	28
D. Rate Survey Results	30
E. Impact Fees	30
F. Specific Miscellaneous Service Charges	32
G. Service Availability Fees	32

**UTILITY RATE STUDY
TABLE OF CONTENTS**

Section	Page
Appendix A:	
Supporting Financial Analysis Schedules for the Revenue Sufficiency Analysis	34
Schedule A1 – Cost Allocation Criteria	35
Schedule A2 – Cost Allocation Percentages & Key Codes	36
Schedule A3 – Annual Costs to be Allocated	37
Schedule A4 – Allocation of Costs to Water and Sewer	38
Schedule A5 – Summary of Cost Allocation to Services	39
Schedule A6 – Revenue Sufficiency Analysis Assumptions	40
Schedule A7 – Beginning Balances	41
Schedule A8 – Capital Improvements Program	42
Schedule A9 – Growth Projections and Operations Cash In-Flows	43
Schedule A10 – Operations Cash Out –Flows	44
Schedule A11 – FAMS-XL© Control Panel	46
Schedule A12 – Proforma	47
Schedule A13 – CIP Funding Sources	48
Schedule A14 – Projected Borrowing	49
Schedule A15 – Funding Summary by Fund	50
Appendix B:	
Supporting Schedules for the Impact Fee Analysis	51
Schedule B1 – Summary of Impact Fee Results	52
Schedule B2 – Water Impact Fee Calculation	53
Schedule B3 – Sewer Impact Fee Calculation	54

**UTILITY RATE STUDY
TABLE OF CONTENTS**

Section	Page
Appendix C:	
Rate & Impact Fee Survey Results	55
Schedule C1 – 2009 Residential Rate Survey	56
Schedule C2 – 2008 Impact Fee Survey	57
Tables in Executive Summary:	
E.1 Proposed Total Utility Rate Revenue Increases	v
E.2 Proposed Water & Sewer Rate Revenue Increases	v
E.3 Recommended Water and Sewer Rates	ix
E.4 Customer Impact Analysis (Usage up to 30,000 gallons per month)	x
E.5 Water & Sewer Service Availability Fees	xiii
Tables in the Report:	
II.1 Proposed Total Utility Rate Revenue Increases	14
II.2 Proposed Water & Sewer Rate Revenue Increases	14
III.1 Water & Sewer Fixed Monthly Charge Survey	19
III.2 Meter Equivalency Factors	23
III.3 Proposed FY 2009 Water and Sewer Rates	27
III.4 Customer Impact Graph of Proposed Rates	28
III.5 Single Family Residential Customer Impact Analysis	29
III.6 Water & Sewer Service Availability Fees	33

Executive Summary

This Final Draft Report (Report) presents the results of a comprehensive Water & Sewer Utility Rate Study (Rate Study) conducted for the City of Fort Lauderdale Water & Sewer Systems (Utility) by Burton & Associates. This Executive Summary presents an overview of the Rate Study, while detailed descriptions of the methodologies, analyses, results and recommendations are presented in the remainder of the Report.

A. Background

The Utility has not conducted a comprehensive water and sewer rate study since 1996¹. However, within the past five years, the Utility has implemented a drought rate surcharge structure for periods of water use restrictions imposed by the South Florida Water Management District. Moreover, the Utility evaluates the sufficiency of its rate revenues every year and has adopted annual rate increases of about 3% to 5% since the 1996 rate study.

It is important that this Rate Study establish a plan of rate adjustments and rate structure modifications to provide for:

- √ Adequate Revenues - Adequate revenues must be generated to support the funding of water and sewer system operations and maintenance (O&M) costs, capital equipment needs, capital improvement needs, and debt service principal and interest costs over the next five to ten years.
- √ Cost of Service Based Rates – The Utility is committed to implementation of rates that are based upon cost of service principals. To the extent possible, the rates developed in this Rate Study apportion the costs of service fairly and equitably based upon generally accepted cost of service rate making principals.
- √ Fixed Cost Recovery & Water Conservation Incentives - The rate structure recommended in this Report is expected to provide a greater level of fiscal stability and ensure fixed cost recovery while also providing a stronger

price incentive for water conservation by residential customers and customers with a separate irrigation meter.

- √ Residential Rate Survey – The Rate Study included the preparation of a residential rate survey that resulted in the comparison of the Utility’s FY 2009 monthly water and sewer bill for a typical single-family user to those of various other local and comparable utility systems.
- √ Impact Fees – The Rate Study included the calculation of comprehensive system capacity charges or impact fees for the water and sewer systems respectively.
- √ Specific Miscellaneous Service Charges – The Rate Study included the preparation of cost computation and fee templates to assist staff in preparing updates to all or certain of the Utility’s existing specific miscellaneous service charges.
- √ Service Availability Fees – The Rate Study included an analysis of establishing service availability fees for vacationing/inactive accounts.

B. The Rate Study

In order to address the requirements to provide adequate revenues over a multi-year projection period and a rate structure that will further the Utility’s objectives, including providing desired pricing signals for water conservation, the Rate Study was completed in two phases of work as follows:

1. Phase I - Revenue Sufficiency Analysis – An analysis was conducted to:
 - a. Evaluate the adequacy of projected water and sewer revenues to fund all of the Utility’s requirements over a ten-year period (FY 2009 through FY 2018).

¹ CH2MHill Rate Study – 1996

- b. Determine a plan of rate adjustments that will provide sufficient revenues to meet all of the Utility’s requirements over that projection period, while avoiding rate spikes.
2. **Phase II - Rate Design** – An analysis was conducted to develop water and sewer rates, fees, and charges that will:
- a. Provide additional fiscal stability and ensure recovery of fixed costs while also providing greater price incentives for water conservation.
 - b. Provide adequate revenues to meet the Utility’s rate revenue requirements in FY 2009 as determined in Phase I.
 - c. Provide Impact Fees that reflect the current cost of service to ensure that growth pays for growth.
 - d. Provide cost computation templates to allow for the updating of all or certain of the Utility’s Specific Miscellaneous Service Charges.
 - e. Recover fixed capacity costs incurred to be continuously ready to serve vacation or otherwise inactive accounts.

C. Results

Although the results presented herein include projections as to the financial performance of the Utility over a ten-year projection period, they represent a snapshot in time based upon estimates and assumptions as to the outcome of future events and conditions. Because future events and conditions may occur differently than projected, it will be important to monitor the results over time and update this analysis periodically.

The results of the Rate Study are as follows:

- 1. **Phase I - Revenue Sufficiency Analysis**
 - a. **Overall Plan of Rate Revenue Adjustments**

The results of the Revenue Sufficiency Analysis indicate that the schedule of *rate revenue* adjustments in Table E.1 below will be needed to achieve required overall increases in water and sewer revenues over the projection period. Rate revenue increases can be achieved in two ways.

- 1) In years that the rate structure is not changed, the rate revenue increase can be achieved by simply applying the rate revenue percentage increase to all elements of the existing rate structure (in this case the rate revenue percentage increase and the increase to all rates are the same).
- 2) However, in years in which the rate structure is changed, the required rate revenue percentage increase is applied to the prior year's rate revenue, adjusted for growth, to determine the revenue requirement for the subject year and the rates for the adjusted rate structure are calculated to produce that revenue requirement, thus achieving the required rate revenue increase. In this case, the increases to individual rates within the rate structure may be significantly different than the rate revenue percentage increase and the percentage increase in a customer's monthly bill may also be different from the rate revenue percentage increase.

In the case of the Utility, a hybrid situation exists now, whereby a portion of the rate revenue increase required in FY 2009 (5% of additional revenue) was achieved by increasing the water and sewer fixed and variable charges uniformly by 5% effective on October 1, 2008. During FY 2009 (currently estimated to be August of 2009), the Utility intends to implement the recommended rates for FY 2009 as presented in this Report that will recover the remaining portion of the total additional revenue required in FY 2009 identified in Table E.1 (i.e. approximately 20% of additional revenue). However, in the years subsequent to FY 2009, the rate revenue increase percentages can simply be applied across-the-board to each component of the prior year's rate structure that will have been implemented at some point during FY 2009 and adjusted in this way in each year of the projection period.

Table E.1 – Proposed Total Utility Rate Revenue Increases

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Percentage Rate Revenue Increases	20.0%	0.0%	5.0%	5.0%	5.0%

b. Cost of Service Allocation and Revenue Recovery

As part of the Study, a cost allocation analysis was performed, whereby projected annual operating expenses by department, transfers, and existing and new debt service requirements were allocated between the water and sewer systems based upon generally accepted industry criteria for each type of expense. This analysis concluded that the average allocation of total utility costs to the water system over the next five and ten years is 56%, with the average sewer system allocation being 44%. The cost allocation results were then compared to the proportion of rate revenues recovered from each respective system. Over the next five and ten years, the projected average percentage of total utility rate revenues recovered by the Utility’s current water rates are 55%, with the remaining 45% of revenues being collected from sewer rates. As such, it was determined that the current rates properly allocate costs based upon cost of service principles, and that the identified plans of total required utility rate adjustments can be recovered equally from water and sewer service.

Table E.2 – Proposed Water & Sewer Rate Revenue Increases

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Percentage Rate Revenue Increases:					
Water	20.0%	0.0%	5.0%	5.0%	5.0%
Sewer	20.0%	0.0%	5.0%	5.0%	5.0%
Total Utility Increase	20.0%	0.0%	5.0%	5.0%	5.0%

Implementation of this plan of adjustments to water and sewer rate revenue will: (a) minimize the projected borrowing required to fund the CIP; (b) provide strong debt service coverage in each year of the projection period; and (c) maintain capital and operating reserves at or above the Utility's target levels in each year of the projection period.

2. Phase II – Rate Design

After evaluation of the current water rate structure, it was determined that adjustments should be made to address the Utility's fiscal stability/fixed cost recovery and water conservation objectives, and that the recommended adjustments could be made within the current utility billing system.

The key results of our evaluation of the current water and sewer rate structure are as follows:

a. Fixed Monthly Charge:

Evaluation - Our analysis indicates that the current fixed monthly charges for water and sewer service reflect a generally reasonable allocation of costs to each customer class, however, the fees are very modest and place a high percentage of revenue recovery at risk in variable usage charges that are not always easy to accurately project/predict.

Recommendation - No changes are recommended to the structure of the fixed monthly charge for water or sewer service, but we do recommend updating the proportionate relationship of the fixed monthly charges by meter size as well as increasing the level of revenue recovered from all fixed monthly charges.

b. Usage Charges:

Evaluation - The current water rate structure differs by customer type and reflects inclining block rate structures for residential and irrigation accounts. However the rates, usage in each block or tier, and the number of tiers varies between the single-family and multi-family residential classes as well as between

residential and irrigation accounts. It is common in most utility rate structures to have consistency between the inclining block rates and tiers within the residential class as a whole, as well as a rational linkage from the residential inclining block rate structure to that of separate irrigation accounts.

The Utility currently employs a single or uniform rate per thousand gallons for commercial and bulk/master metered accounts. This is a common practice, as non-residential customers do not exhibit as predictable a discretionary usage profile as the residential class. Many businesses use water in either the production of products or the delivery of service. Although there are methods that are used to implement increasing (or inclining) block water rates for commercial customers, all inevitably assess a punitive rate upon many commercial customers who have little ability to reduce usage in response to price.

Relative to sewer service, there is a two-tier rate structure for residential customers, with a cap or maximum billed use of 20,000 gallons per month for single-family accounts and between 7,000 and 8,000 gallons for each unit of a master metered multi-family residential account (depends upon the total number of units per account). Commercial and bulk/master metered customers are subject to a uniform rate per thousand gallons of metered water use with no cap or maximum.

Recommendation - This Rate Study recommends that the inclining block rate structure for individually metered single family residential customers be revised from a three-tier structure to a five-tier structure. Moreover, we recommend applying the inclining block rates and structure on a per dwelling unit basis for multi-family residential accounts, but with different use in each tier that is scaled based upon the proportion of average use per multi-family dwelling unit to average use per single-family dwelling unit. We also recommend updating the irrigation inclining block ranges and rates to be consistent with the recommended rate structure for residential accounts. These changes are expected to send a stronger price signal to high volume residential and irrigation accounts, while sheltering usage within normal ranges from increases applied to the higher ranges of usage where conservation is targeted.

Furthermore, given the likelihood of year-round water use restrictions, the FY 2009 rates have been developed to include the additional drought rate surcharges for Phase II water use restrictions. As such, we recommend modifying the drought rate surcharge structure to eliminate any surcharges through Phase II water use restrictions and to amend those for greater use restriction phases to be consistent with the recommended FY 2009 rate structure.

The Study also recommends updating the commercial and bulk/master metered uniform water rate to reflect the FY 2009 uniform cost per thousand gallons of the Utility.

Finally, we recommend applying the single family sewer usage rate structure to multi-family accounts on a per unit basis as is proposed for water usage charges. Similarly, we recommend updating the commercial and bulk/master metered uniform sewer rate to reflect the current uniform cost per thousand gallons of billed sewer flow for FY 2009.

c. Recommended Water and Sewer Rates

The FY 2009 rates recommended in this Rate Study are shown in Table E.3 on the following page.

UTILITY RATE STUDY EXECUTIVE SUMMARY

Table E.3 – Recommended Water and Sewer Rates

FIXED CHARGES	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
5/8"	4.71	6.92	4.71	6.92	4.71	6.92	15.35	23.98	4.71	4.71
3/4"	6.54	9.86	6.54	9.86	6.54	9.86	21.95	34.57	6.54	6.54
1"	10.21	15.75	10.21	15.75	10.21	15.75	35.16	55.75	10.21	10.21
1.5"	19.38	30.45	19.38	30.45	19.38	30.45	68.54	109.28	19.38	19.38
2"	30.39	48.10	30.39	48.10	30.39	48.10	108.52	173.40	30.39	30.39
3"	56.07	89.28	56.07	89.28	56.07	89.28	201.33	322.23	56.07	56.07
4"	92.75	148.11	92.75	148.11	92.75	148.11	334.50	535.77	92.75	92.75
6"	184.46	295.17	184.46	295.17	184.46	295.17	667.22	1,069.32	184.46	184.46
8"	294.51	471.65	294.51	471.65	294.51	471.65	1,065.97	1,708.76	294.51	294.51
10"	422.90	677.54	422.90	677.54	422.90	677.54	1,914.83	3,070.00	422.90	422.90
12"	789.74	1,265.80	789.74	1,265.80	789.74	1,265.80	3,078.81	4,936.56	789.74	789.74
16"	1,284.97	2,059.96	1,284.97	2,059.96	1,284.97	2,059.96	5,203.17	8,343.18	1,284.97	1,284.97

USAGE CHARGES	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
Block Ranges - (1,000 gal. per mo.)	(per unit)	(per unit)	(per unit)	(per unit)	(per meter)	(per meter)	(per meter)	(per meter)	(per meter)	(per meter)
Block 1	0 - 3	0 - 3	0 - 1	0 - 1	> 0	> 0	> 0	> 0	0 - 12	N/A
Block 2	4 - 8	4 - 20	2 - 3	2 - 8					13 - 20	
Block 3	9 - 12	> 20	4 - 5	> 8					>20	
Block 4	13 - 20		6 - 8							
Block 5	>20		>8							
Usage Rates (\$ / 1,000 gal.)	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
Block 1	\$ 1.44	\$ 2.55	\$ 1.44	\$ 2.55	\$ 3.49	\$ 4.54	\$ 3.49	\$ 4.54	\$ 4.00	N/A
Block 2	\$ 3.20	\$ 5.65	\$ 3.20	\$ 5.65					\$ 5.39	
Block 3	\$ 4.00	\$ -	\$ 4.00	\$ -					\$ 7.82	
Block 4	\$ 5.39		\$ 5.39							
Block 5	\$ 7.82		\$ 7.82							

Note: The use per block shown for Irrigation above is for a 5/8" meter. The use in each block for all other meter sizes is adjusted based upon the meter equivalency factor identified on Table III.2.

d. Customer Impact Analysis

Implementation of the recommended changes to the water and sewer rate structure will affect all customer classes. Specifically, implementation of the recommended changes to the water and sewer rate structure will impact customers with alternative usage patterns differently. Table E.4 on the following page provides the customer impact upon a single family residential 5/8 x 3/4 inch metered customer's combined water and sewer bill (including drought rate surcharges as applicable) at consumption levels in 1,000 gallon per month increments up to 30,000 gallons per month.

**UTILITY RATE STUDY
EXECUTIVE SUMMARY**

Table E.4 – Customer Impact Analysis (Usage up to 30,000 gallons per month)

Single Family Residential Bill Comparison							
% of Bills	Cumulative %	Water Use	Rates - 10/1/08	Rates - 7/1/09	\$ Change	% Change	
			W & S	W & S	W & S	W & S	
7.9%	7.9%	0	\$ 8.55	\$ 11.63	\$ 3.08	36.0%	
5.7%	13.6%	1	\$ 12.85	\$ 15.62	\$ 2.77	21.6%	
8.5%	22.1%	2	\$ 17.15	\$ 19.61	\$ 2.46	14.3%	
10.2%	32.3%	3	\$ 21.45	\$ 23.60	\$ 2.15	10.0%	
10.4%	42.7%	4	\$ 28.54	\$ 32.45	\$ 3.91	13.7%	
9.5%	52.2%	5	\$ 35.63	\$ 41.30	\$ 5.67	15.9%	
8.0%	60.2%	6	\$ 42.72	\$ 50.15	\$ 7.43	17.4%	
6.4%	66.6%	7	\$ 49.81	\$ 59.00	\$ 9.19	18.5%	
5.2%	71.9%	8	\$ 58.21	\$ 67.85	\$ 9.64	16.6%	
4.1%	76.0%	9	\$ 66.61	\$ 77.50	\$ 10.89	16.3%	
3.3%	79.3%	10	\$ 75.01	\$ 87.15	\$ 12.14	16.2%	
2.6%	81.9%	11	\$ 83.41	\$ 96.80	\$ 13.39	16.1%	
2.1%	84.0%	12	\$ 91.81	\$ 106.45	\$ 14.64	15.9%	
1.8%	85.8%	13	\$ 100.21	\$ 117.49	\$ 17.28	17.2%	
1.5%	87.2%	14	\$ 108.61	\$ 128.53	\$ 19.92	18.3%	
1.2%	88.5%	15	\$ 117.01	\$ 139.57	\$ 22.56	19.3%	
1.1%	89.5%	16	\$ 125.41	\$ 150.61	\$ 25.20	20.1%	
0.9%	90.5%	17	\$ 133.81	\$ 161.65	\$ 27.84	20.8%	
0.8%	91.3%	18	\$ 142.21	\$ 172.69	\$ 30.48	21.4%	
0.7%	92.0%	19	\$ 150.61	\$ 183.73	\$ 33.12	22.0%	
0.6%	92.6%	20	\$ 159.01	\$ 194.77	\$ 35.76	22.5%	
0.6%	93.2%	21	\$ 162.55	\$ 202.59	\$ 40.04	24.6%	
0.5%	93.7%	22	\$ 166.09	\$ 210.41	\$ 44.32	26.7%	
0.5%	94.2%	23	\$ 169.63	\$ 218.23	\$ 48.60	28.7%	
0.4%	94.6%	24	\$ 173.17	\$ 226.05	\$ 52.88	30.5%	
0.4%	95.0%	25	\$ 176.71	\$ 233.87	\$ 57.16	32.3%	
0.3%	95.4%	26	\$ 180.25	\$ 241.69	\$ 61.44	34.1%	
0.3%	95.7%	27	\$ 183.79	\$ 249.51	\$ 65.72	35.8%	
0.3%	96.0%	28	\$ 187.33	\$ 257.33	\$ 70.00	37.4%	
0.3%	96.2%	29	\$ 190.87	\$ 265.15	\$ 74.28	38.9%	
3.8%	100.0%	30+	\$ 194.41	\$ 272.97	\$ 78.56	40.4%	

e. **Impact Fees**

Impact fees are established in order to recover the proportionate share of the capital costs a utility incurs to provide the “backbone” water supply, treatment and distribution facilities, and sewer collection, treatment and disposal facilities necessary to meet a new customer’s capacity requirements. While the Utility already has a form of capacity expansion fees in the City Ordinance, it is recommended that the impact fees calculated as part of this analysis replace these fees and are applied to all growth and redevelopment as appropriate (except we recommend continuing to assess the additional \$1,000 per Equivalent Residential Unit (ERU) charge applicable to new sewer connections under the WaterWorks 2011 program).

The recommended impact fee per ERU (based upon 300 GPD) for water service is \$1,511 and the recommended fee for sewer service is \$1,869. The current expansion fees for combined water and sewer service of \$1,386 and \$651 respectively. As such, the new fees represent a \$125 and \$1,218 increase over the existing fees for water and sewer respectively. For a combined water and sewer ERU, the total proposed impact fee is \$3,381 versus the current total of \$2,037, representing an increase of \$1,344, or 66%. Appendix B includes supporting schedules presenting the basis for the proposed impact fees.

Although the City Commission has the discretion to adopt impact fees at a percentage of the full cost recovery fees, or to phase in increases to full cost recovery over a multi-year period, we recommend adoption of full cost recovery fees to ensure that to the extent possible growth pays its fair share of the capital assets necessary to serve it. We also recommend that the Utility implement an annual escalation policy for impact fees that applies appropriate construction cost escalation factors for no more than five years, at which time the impact fees should be recalculated to ensure that fundamental changes in the underlying cost of capital assets are regularly accounted for in the fees. This would be a cost-effective way to keep the fee generally in line with escalating construction costs and to also provide a mechanism to periodically recalculate the fees to reflect changing capital requirements in response to regulatory requirements, growth/redevelopment, etc.

f. Specific Miscellaneous Service Charges

The Utility currently has an array of specific miscellaneous service charges that are assessed to customers for the performance of specific services that benefit only the customer for whom the service is provided. As part of the Study, we prepared detailed cost computation templates that were provided to Utility staff to be populated with actual cost information for each type of service in order to determine whether the current fees are recovering the current costs incurred to provide each respective service. Upon completion of the cost computation templates, it is anticipated that staff will initiate the appropriate ordinance and/or resolution adjustments to update the appropriate specific miscellaneous service charges.

g. Service Availability Fees

The purpose of a service availability fee is to recover a portion of the costs that the utility incurs to maintain a readiness to serve properties that at one time had active utility service but are currently inactive.

Typically service availability fees are equal to the fixed monthly charge of the user fee that is paid by properties that are currently receiving utility service, less the portion of the fixed charge associated with the costs of meter reading/customer service (if a utility does not read the meters and/or issue bills for inactive accounts). The fixed monthly charge component of the user fee is typically structured to represent a “readiness-to-serve” charge and it is an appropriate policy to assess that charge to properties that are connected to the system and at one time received active service but are currently inactive.

As the Utility continues to read the meters for all inactive accounts, we recommend applying the full fixed monthly charges as the amount of the service availability fees. These fees for FY 2009 are presented in Table E.5 for consideration by the Utility, and it is important to note that these fees should adjust consistent with future adjustments to the water and sewer fixed monthly charges.

**UTILITY RATE STUDY
EXECUTIVE SUMMARY**

Table E.5 – Water & Sewer Service Availability Fees

<u>Meter Size</u>	<u>Water Service Availability Fee</u>	<u>Sewer Service Availability Fee</u>
5/8"	\$4.71	\$6.92
3/4"	\$6.54	\$9.86
1"	\$10.21	\$15.75
1.5"	\$19.38	\$30.45
2"	\$30.39	\$48.10
3"	\$56.07	\$89.28
4"	\$92.75	\$148.11
6"	\$184.46	\$295.17
8"	\$294.51	\$471.65
10"	\$422.90	\$677.54
12"	\$789.74	\$1,265.80
16"	\$1,284.97	\$2,059.96

Section I - Rate Study Overview

This Report presents the results of a comprehensive water and sewer rate study (Rate Study) that Burton & Associates conducted for the City of Fort Lauderdale's Water & Sewer System (Utility).

A. Background

The Utility has not conducted a comprehensive water and sewer rate study since 1996². However, within the past five years, the Utility has implemented a drought rate surcharge structure for periods of water use restrictions imposed by the South Florida Water Management District. Moreover, the Utility evaluates the sufficiency of its rate revenues every year and has adopted annual rate increases of about 3% to 5% since the 1996 rate study. Given the length of time since the last formal rate study and the current economic environment/conditions, the Utility determined it was appropriate to again perform a detailed rate study.

B. Scope

This Rate Study included the following elements:

- √ *Revenue Sufficiency Analysis* – Development of a plan of rate revenue increases to ensure that adequate revenues will be generated to support the funding of all of the Utility's requirements³ (operation and maintenance expenses, transfers, equipment, capital improvement needs, and debt service principal and interest costs) over the next ten years.

- √ *Cost of Service Based Rates* – The Utility is committed to implementation of rates that are based upon cost of service principals. To the extent possible, the rates developed in this Rate Study apportion the costs of

² CH2MHill Rate Study – 1996

³ It is important to note that the scope of the Rate Study was limited to the Utility's local systems only and did not analyze the financial performance and operations of the Regional Wastewater Treatment Plant.

service fairly and equitably based upon generally accepted cost of service rate making principals.

- √ *Fixed Cost Recovery & Water Conservation Incentives* - The rate structure recommended in this Report is expected to provide a greater level of fiscal stability and fixed cost recovery while also providing a stronger price incentive for water conservation by residential customers and customers with a separate irrigation meter.
- √ *Impact Fees* – The Rate Study included the calculation of comprehensive system capacity charges or impact fees for the water and sewer systems.
- √ *Specific Miscellaneous Service Charges* – The Rate Study included the preparation of cost computation and fee templates to assist staff in preparing updates to all or certain of the Utility’s existing Specific Miscellaneous Service Charges.
- √ *Residential Rate Survey* – The Rate Study included the preparation of a residential rate survey that resulted in the comparison of the Utility’s FY 2008 monthly water and sewer bill for a typical single-family user to those of various other local and comparable utility systems.
- √ *Service Availability Fees* – The Rate Study included an analysis of establishing service availability fees for vacationing/inactive accounts.

C. Study Procedures

The Rate Study was conducted in two phases of work:

Phase I – Revenue Sufficiency Analysis

Phase II – Rate Design

UTILITY RATE STUDY

I. RATE STUDY OVERVIEW

In each phase of the Rate Study, we met with Utility staff to obtain all required data and information. We then performed the revenue requirements analysis and rate calculations using our proprietary Financial Analysis and Management System (FAMS-XL©). FAMS-XL© is an interactive utility financial planning and rate model that allows us to simulate the financial dynamics of a utility over a multi-year projection period. We used FAMS-XL© to identify alternative financial management programs and associated plans of rate revenue adjustments to provide sufficient revenues to fund all of the Utility's requirements over a ten-year projection period. We met with staff in several interactive work sessions to review the results, evaluate what-if scenarios and develop the recommended financial management program.

We used the Rate Design module of FAMS-XL© to develop the recommended rates under the recommended rate structure presented in this Report. As in Phase I, we met with staff in several interactive work sessions to review rate design alternatives and develop the recommended water and sewer rates presented in this Report.

Section II – Revenue Sufficiency Analysis

A. Introduction

This section of the Report presents the results of the Revenue Sufficiency Analysis which was conducted during Phase I of the Utility Rate Study (Rate Study) for the City of Fort Lauderdale’s Water & Sewer Systems (Utility). The Revenue Sufficiency Analysis was based upon a ten-year projection period from FY 2009 through FY 2018⁴. The first five years of the projection period from FY 2009 through FY 2013 can be considered a planning period during which the accuracy of the projected results can be considered for current decision making. The remainder of the projection period is included in the analysis to determine if there are any major capital funding or operational issues that may emerge during that time frame that may need to be addressed as part of the rate and financial planning decision-making process. Examples of such would include the need for alternative supplies of water, major sewer system capacity requirements, etc.

Section II.A.1 and 2 present the objective and scope of the Revenue Sufficiency Analysis and the procedures employed in the conduct of the analysis. Section II.B presents the results, and Section II.C presents the conclusions and recommendations of the Revenue Sufficiency Analysis.

1. Objective and Scope

The objective of the Revenue Sufficiency Analysis was to:

Evaluate the sufficiency of the Utility’s water and sewer rates over a ten-year projection period. This evaluation included development of a recommended financial management plan that identified rate revenue increases that would

⁴ While the analysis includes actual and estimated information for FY 2008, this information serves as the basis for future projections. As such FY 2008 is not considered to be part of the projection period.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

provide sufficient revenues to fund all of the Utility's requirements from FY 2009 through FY 2018 for its local water and sewer systems⁵.

2. Revenue Sufficiency Analysis Study Procedures

In the Revenue Sufficiency Analysis, we developed alternative ten-year financial management plans and corresponding rate revenue adjustment plans through several interactive work sessions with Utility staff. During these work sessions we examined the impact of various alternatives upon key financial indicators by use of graphical representations projected on a large viewing screen from our computer rate models. In this way, we developed rate revenue adjustment plans for each alternative financial management plan identified, including the recommended financial management plan presented in this Report, which will allow the Utility to fund its system requirements throughout the projection period and meet its financial performance goals and objectives.

In order to initialize our analysis, we obtained the Utility's historical and budgeted financial information regarding the operation of the Utility's water and sewer systems. We also obtained the Utility's ten-year capital improvement program, including annual renewal and replacement requirements and the remaining portion of the WaterWorks 2011 program. We documented the Utility's current debt obligations and the covenants, or promises made to bond holders or other lenders, relative to net income coverage requirements, reserves, etc. We also counseled with Utility staff regarding other assumptions and policies that would affect the financial performance of the Utility such as growth, bond coverage levels, additional capital expenses outside of the Utility's adopted budget and master plans, required levels of operating and capital reserves, earnings on invested funds, escalation rates for operating costs, etc.

All of this information was entered into our proprietary Financial Analysis and Management System (FAMS-XL©) interactive model. The FAMS-XL© model produced a ten-year projection of the sufficiency of the proposed water and sewer revenues to meet all of the Utility's current and projected financial requirements and determined the level of rate revenue increases necessary in each year of the projection

⁵ The scope of the Rate Study was limited to a review of the local systems and excluded any financial analysis of the Regional Wastewater Treatment Plant financial performance and operation.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

period to provide sufficient revenues to fund all of the Utility's cost requirements. A cost allocation analysis was also conducted to determine if the current water and sewer rates were properly recovering the cost associated with each respective system.

FAMS-XL© utilizes all projected available and unrestricted funds in each year of the projection period to pay for capital projects. The model is set up to reflect the rules of cash application as defined and applied by Utility staff. The model produces a detailed summary of the funding sources to be used for each project in the capital improvements program.

To the extent that current revenues and unrestricted reserves are not adequate to fund all capital projects in any year of the projection period, the FAMS-XL© model identifies a borrowing requirement to fund those projects, or portions thereof that are determined to be eligible for borrowing. In this way the FAMS-XL© model is used to develop a borrowing program that includes the required borrowing amount by year and the resultant annual debt service obligations of the Utility for each year in the projection period.

B. Revenue Sufficiency Analysis Results

This section presents the results of the Revenue Sufficiency Analysis. As described previously, this analysis identified a recommended financial management plan and corresponding rate revenue adjustment plan that would generate sufficient revenues to fund all of the requirements of the Utility from FY 2009 through FY 2018.

Section II.B.1 presents a description of the Revenue Sufficiency Analysis, while Section II.B.2 outlines the assumptions, funding strategies, and adjustments of the analysis. Section II.B.3 provides the specific results of the analysis. Appendix A includes detailed financial analysis schedules supporting the financial management plan evaluated and recommended herein.

UTILITY RATE STUDY
II. REVENUE SUFFICIENCY ANALYSIS

1. Description of the Analysis

The Revenue Sufficiency Analysis was performed using the Utility's historical and projected information regarding the operation of its water and sewer systems. The FY 2007 Comprehensive Annual Financial Report (CAFR) as of September 30, 2007 and supplemental information provided by Utility and City staff provided the historical financial information used to establish the beginning FY 2008 balances of various funds. Water and sewer rate revenue projections were based upon estimated FY 2008 amounts and annual growth assumptions. The projection of all other revenues (excluding impact fee revenue) was based upon FY 2009 Proposed Budget amounts adjusted as appropriate based upon review of historical receipts and discussions with Utility staff.

Operating expenses for FY 2009 were based upon FY 2009 Proposed Budget amounts. The FY 2009 operating and maintenance (O&M) expense amounts served as the basis for all future year projections and were adjusted annually by appropriate cost escalation factors discussed with and agreed to by Utility staff. Actual expenses in all years from FY 2009 through FY 2018 were assumed to be incurred at 96% of projected amounts. Impact Fee revenue (including the WaterWorks connection fee revenue) was calculated each year based upon the annual growth projections in equivalent residential units (ERUs) for water and sewer, multiplied by the Impact Fee per equivalent residential unit (ERU, which is comparable to a 5/8-inch meter equivalent) for water and sewer, respectively. The calculation of system revenues and annual revenue requirements is described in the following sub-sections.

a. System Revenues

The base revenues used in this analysis reflect a combination of estimated FY 2008 results (eight months of actual data was available at the time the Rate Study was prepared) and the FY 2009 Proposed Budget amounts. Revenues consist of 1) water and sewer rate revenue, and 2) all other categories of revenue. FY 2008 water and sewer rate revenue was based upon estimated FY 2008 results. The fiscal years after FY 2008 were projected based upon additional water and sewer rate revenue from the water and sewer rate increases assumed in each year of the projection period, and the projected water and

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

sewer growth assumptions provided by and discussed with Utility staff. FY 2008 was determined to be a reasonable year upon which to base future rate revenue projections as a result of 1) a detailed review and analysis of a five-year monthly history of revenues and billable volumes, 2) the fact that FY 2008 reflected water use restrictions throughout the entire year, and 3) detailed discussions with Utility staff. All other non-rate revenues (excluding Impact Fee and WaterWorks 2011 sewer connection fee revenues, as well as investment earnings) were based upon FY 2009 Proposed Budget amounts projected based upon factors determined during discussions with Utility staff.

The projection of investment earnings on invested funds was calculated in the FAMS-XL© model based upon a computation of average fund balances in each year of the projection period. The projection of annual Impact Fee and WaterWorks sewer connection fee revenue is based upon unit growth projections multiplied by the appropriate fee per unit for water and sewer respectively.

b. Revenue Requirements

The FY 2009 revenue requirements used for the purpose of rate design, discussed in Section III, were based upon FY 2009 Proposed Budget O&M expenses (assumed to be incurred at 96% of budgeted amounts), miscellaneous other expenses, debt service requirements, and inter-fund transfers. In subsequent years of the projection period, the projection of O&M expenses was based upon escalation of FY 2009 O&M expenses using annual escalation factors for individual expense categories determined in consultation with Utility staff, based upon recent experience and expectations as to escalation factors for the near future (assumed to be incurred at 96% of projected amounts). Annual CIP costs were included in the analysis as described in Section II.B.2.h and in the CIP Schedules included in Appendix A.

c. Financial Management Program

During the conduct of this Revenue Sufficiency Analysis, we communicated with Utility staff regarding various assumptions used in the development of the analysis presented in this Report. We then examined a number of alternative rate revenue

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

adjustment plans, and discussed those scenarios with the Utility staff to determine the financial management program and rate revenue adjustment plan (percentage rate revenue adjustments) presented in this Report that provides for a relatively regular plan of water and sewer rate revenue adjustments while providing sufficient revenues in each year of the projection period.

Note: Rate revenue increases can be achieved in two ways.

- 1) In years that the rate structure is not changed, the rate revenue increase can be achieved by simply applying the rate revenue percentage increase to all elements of the existing rate structure (in this case the rate revenue percentage increase and the increase to all rates are the same).
- 2) However, in years in which the rate structure is changed, the required rate revenue percentage increase is applied to the prior year's rate revenue, adjusted for growth, to determine the revenue requirement for the subject year and the rates for the adjusted rate structure are calculated to produce that revenue requirement, thus achieving the required rate revenue increase. In this case, the increases to individual rates within the rate structure may be significantly different than the rate revenue percentage increase and the percentage increase in a customer's monthly bill may also be different from the rate revenue percentage increase.

In the case of the Utility, a hybrid situation exists now, whereby a portion of the rate revenue increase required in FY 2009 was achieved by increasing the water and sewer fixed charges and usage or variable charges by 5% effective on October 1, 2008. During FY 2009 (currently estimated to be August of 2009), the Utility intends to implement the recommended rates for FY 2009 as presented in this Report that will recover the remaining portion of the total additional revenue required in FY 2009. However, in the years subsequent to FY 2009, the rate revenue increase percentages can simply be applied across-the-board to each component of the prior year's rate structure

UTILITY RATE STUDY
II. REVENUE SUFFICIENCY ANALYSIS

that will have been implemented at some point during FY 2009 and adjusted in this way in each year of the projection period.

2. Assumptions of the Revenue Sufficiency Analysis

The assumptions, funding strategies, and adjustments included in our revenue sufficiency analysis are as listed below:

- a. Revenues and Expenses** - The water and sewer rate revenue projections are based upon FY 2008 estimated amounts and reflect growth assumptions provided by and discussed with Utility staff. The projection of all other revenues (excluding Impact Fee and WaterWorks 2011 connection fee revenue) was based upon FY 2009 Proposed Budget amounts, adjusted annually as appropriate based upon discussions with Utility staff. Interest earnings were calculated on average annual fund balances, and Impact Fee and WaterWorks 2011 connection fee revenues were calculated based upon the appropriate fee per equivalent residential unit (ERU) and annual ERU growth projections. O&M expenses were based upon the Utility's Proposed FY 2009 Budget O&M expenses, escalated by appropriate annual escalation factors for subsequent years of the projection period and are assumed to be incurred at 96% of projected levels in each year.
- b. Cost Escalation** - Annual cost escalation factors were determined for each character O&M expense category in consultation with Utility staff and are based upon recent historical experience and expectations as to escalation factors for the near future.
- c. Borrowing Assumptions** - The Revenue Sufficiency Analysis assumes that to the extent new debt is issued during the planning period it would carry the following terms:

 - Term: 30 Years
 - Interest Rate: 5.75% in each year of the projection period.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

- d. **Interest Earnings on Invested Funds*** - It is assumed interest earnings on invested funds would be 1.5% in FY 2009, 1.75% in FY 2010, and 2.0% in FY 2011 and each year thereafter for the remainder of the projection period.
- e. **Growth*** - Growth in water and sewer rate revenue is a function of growth in customers and growth in total system usage. Annual growth in accounts and usage were provided by and discussed with Utility staff. For both the water and sewer systems, no “normal” or “base” growth in customers is assumed for FY 2009; however, a very modest level of growth is assumed starting in FY 2010. This modest growth represents 250 new ERUs in FY 2010, 500 ERUs in FY 2011, and 750 ERUs in FY 2012 and each year thereafter. These ERU growth assumptions result in annual growth of 0% - 0.6% during the projection period. It is also important to note that there is additional near-term growth expected on the sewer system due to the connection of several existing properties to the central sewer system as part of the WaterWorks 2011 Program. As such, in addition to the growth described previously, there is projected to be an additional 4,390 new sewer ERUs in FY 2009, 2,350 in FY 2010, and 435 ERUs in FY 2011. As the WaterWorks 2011 program is expected to be essentially complete in FY 2011, there are no more additional units reflected in the analysis beyond FY 2011.
- f. **Price Elasticity*** - Generally, as water and sewer rates increase, discretionary water and sewer usage will decline. This relationship is referred to as the “price elasticity of demand.” The reduction in usage due to increases in price would depend upon the level of rate increase and amount of discretionary usage customers have. If demand decreases by 10 percent for every 100 percent increase in price, then the price elasticity is -0.1. This elasticity effect occurs 1) with overall increases in price from year to year, and 2) with changes in rate structure that cause the water and sewer bill of a customer to increase. The financial model reflects the expected response of customer demands to increases in the price of water and sewer services. The first elasticity effect is included in the plan of rate revenue adjustments in the Revenue Sufficiency Analysis (total system elasticity was assumed to be -0.2 in FY 2009⁶, decreasing by 10% per year

⁶ Assumes a 2% reduction in water usage for every 10% increase in the cost of water and sewer service above inflation.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

throughout the projection period to reflect the fact that as discretionary water use declines, there is less ability to achieve similar future reductions in usage in response to price increases). The second elasticity effect is included in calculating the proposed rate design modifications described in Section III that result in rate increases for higher levels of usage that are projected to cause an additional reduction in water use in FY 2009, the year that the inclining block rates are to be implemented.

- g. Minimum Operating & Capital Fund Balances*** – The financial management plan presented in this Report assumes that the Utility will maintain a minimum operating or Working Capital Reserve (WCR) fund balance in an amount equal to two months of O&M expenses. The financial management plan also reflects a minimum capital improvement fund balance of \$20 million.
- h. Capital Projects Funding*** – The Utility’s ten-year CIP expense levels for FY 2009 through FY 2018 were provided by Utility staff and its consulting engineers. The analysis assumes that the Utility will transfer a minimum of \$3 million per year from operations to fund shorter-lived projects in the CIP. It is also important to note that the analysis reflects annual capital spending of 100% for all WaterWorks 2011 projects and 80% for all non-WaterWorks CIP. The projected annual capital costs are presented in Appendix A.
- i. Debt Service Coverage*** – Debt service coverage is the ratio of net income to annual principal and interest (debt service) that provides a buffer of revenue to protect bond holders against unanticipated downturns in revenue. The debt service coverage requirement in the Utility’s outstanding bond covenants is that net income (gross income, minus O&M expenses) must exceed annual debt service by 25%⁷. In other words, the required debt service coverage ratio is 1.25.

This coverage requirement is a minimum requirement. To the extent that a utility is unable to meet these requirements, it could be found in technical default and

⁷ There is also an alternative debt service coverage test in the Utility’s outstanding bond covenants that includes impact fees in the determination of net income, but requires this alternative net income amount to exceed debt service by 30% instead of 25%.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

would potentially have its credit rating downgraded, which would affect the interest rates and terms of future financing initiatives. As a policy decision, a utility may opt to measure revenue sufficiency and set rates based upon a higher coverage requirement in order to ensure compliance with these covenants in the event future projections of revenue, expenses, and debt do not occur as predicted.

As such, the recommended financial management plan was established to maintain a debt service coverage ratio of 1.5 instead of the required 1.25.

It is also important to note that the Utility does have loans from the State Revolving Fund loan program. These loans are subordinate to the Utility's revenue bonds and also have a lower required debt service coverage ratio of 1.15. The financial management plan recommended herein provides an average annual SRF coverage ratio in excess of 4.0 during the projection period.

3. Results of the Revenue Sufficiency Analysis

As described earlier, this Revenue Sufficiency Analysis identified a recommended financial management plan that would provide sufficient revenue to fund the Utility's costs in each year of the projection period. The recommended financial management plan is described in detail below.

a. Financial Management Program Rate Revenue Adjustment Plan

The rate revenue increases proposed in the recommended financial management plan beginning in FY 2009 (excluding the 5% increase that was effective October 1, 2008) and extending throughout the initial five years of the projection period are summarized in Table II.1 on the following page⁸.

⁸ Although the projection period is ten years, the first five projected years are considered a planning period for actual rate decisions, therefore only the first five projected years are presented in the table in the Report and the full results of all ten years are presented in the schedules in the Appendix.

UTILITY RATE STUDY
II. REVENUE SUFFICIENCY ANALYSIS

Table II.1 – Proposed Total Utility Rate Revenue Increases

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Percentage Rate Revenue Increases	20.0%	0.0%	5.0%	5.0%	5.0%

As part of the Study, a cost allocation analysis was performed, whereby projected annual operating expenses by department, transfers, and existing and new debt service requirements were allocated between the water and sewer systems based upon generally accepted industry criteria for each type of expense⁹. This analysis concluded that the average allocation of total utility costs to the water system over the next five and ten years is 56%, with the average sewer system allocation being 44%. The cost allocation results were then compared to the proportion of rate revenues recovered from each respective system. Over the next five and ten years, the projected average percentage of total utility rate revenues recovered by the Utility’s current water rates are 55%, with the remaining 45% of revenues being collected from sewer rates. As such, it was determined that the current rates properly allocate costs based upon cost of service principles, and that the identified plans of total required utility rate adjustments can be recovered equally from water and sewer service.

Table II.2 – Proposed Water & Sewer Rate Revenue Increases

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>
Percentage Rate Revenue Increases:					
Water	20.0%	0.0%	5.0%	5.0%	5.0%
Sewer	20.0%	0.0%	5.0%	5.0%	5.0%
Combined Effective Increase	20.0%	0.0%	5.0%	5.0%	5.0%

⁹ See Schedules A1 – A5 in Appendix A for the detailed results of the cost allocation analysis.

UTILITY RATE STUDY

II. REVENUE SUFFICIENCY ANALYSIS

Implementation of this plan of adjustments to water and sewer rate revenue will: (a) minimize the projected borrowing required to fund the CIP; (b) provide strong debt service coverage in each year of the projection period; and (c) maintain capital and operating reserves at or above the Utility's target levels in each year of the projection period.

b. Supporting Analysis

Appendix A presents Schedules A1 through A15 for the recommended financial management plan developed in this Revenue Sufficiency Analysis. The recommended financial management plan assumes that the rate revenue increases shown in each year of the projection period are implemented, and the proposed Impact Fees for water and sewer are implemented by FY 2010, and adjusted annually thereafter.

Schedules A1 through A5 present the supporting analysis for allocation of costs to the water and sewer utilities. Schedules A6 through A15 present detailed schedules of the inputs and assumptions that are applicable to the recommended financial management plan developed in this analysis. Schedule A6 contains many of the assumptions described in Section II.B.2. Schedule A7 contains the end of FY 2007 fund balances that serve as the FY 2008 beginning balances of our analysis. Schedule 8 presents the ten-year CIP. Schedule A9 provides growth projections and operations cash in-flows and Schedule A10 presents operations cash out-flows.

Schedule A11 contains the FAMS XL© Control Panel that presents a summary of the results of the financial management plan, including the rate revenue increases, debt service coverage ratios, capital improvement spending levels, customer impacts, and fund balances. Schedule A12 is a Pro Forma schedule that presents a projected income statement, debt service coverage analysis, and cash flow analysis. Schedule A13 shows the funding sources utilized to pay for the total capital improvement plan spending levels identified on Schedule A8. Schedule A14 contains the calculation of annual long-term borrowing, while Schedule A15 presents a funding summary by fund

C. Revenue Sufficiency Analysis Conclusions and Recommendations

This section presents the fundamental conclusions and recommendations of the Revenue Sufficiency Analysis.

1. Revenue Sufficiency Analysis Conclusions

Based upon the assumptions and analyses presented in this Report, we have reached the following conclusion regarding the sufficiency of the Utility's water and sewer rates over the planning period from FY 2009 through FY 2013:

- Provided that actual conditions are consistent with the underlying assumptions upon which this analysis is based, implementation of the water and sewer rate revenue increases presented in Table II.2 in FY 2009 through FY 2013 will provide sufficient revenue to fund the requirements of the Utility during the planning period.

To the extent that O&M cost escalation, customer growth, and price elasticity assumptions are conservative, and/or O&M and capital expenditures are overstated, the Utility will be in a more favorable financial position than projected. As a result, future required rate increases could be lower than forecast in the model. Conversely, if O&M and capital expenses are higher than projected, price elasticity is higher than assumed, and/or customer growth and water sales are lower than projected, the Utility will not be as financially strong as projected by the model.

Finally, to the extent that the City decides to adopt rate revenue increases different than those identified in this Report and future projections occur as predicted, then the Utility would have to either increase the level of its other fees and charges to meet its revenue requirement, or reduce its revenue requirement by cutting operating and/or CIP costs in order to achieve the financial results as presented in this Report.

2. Revenue Sufficiency Analysis Recommendations

Based upon the analysis presented herein and the conclusions presented in the previous subsection, we recommend the following:

- Adopt the recommended rates presented in Section III, to be effective August of 2009. These recommended rates were developed to generate the required rate revenue for FY 2009 and are critical to the future financial performance of the Utility.
- Adopt the plan of water and sewer rate revenue increases presented in Table II.1 through FY 2013.
- Conduct annual water and sewer revenue sufficiency analysis updates to incorporate revised revenue and expense projections (both O&M as well as capital) so that any necessary adjustments can be made to the rate revenue adjustment plans embodied in the recommended financial management plan in order to allow the Utility to continue to meet its requirements during the planning period. Given the current level of uncertainty surrounding year-round water use restrictions and their lasting impact on water use and continued cost increases in key utility operating components such as fuel and electricity, monitoring the financial performance of the Utility on a regular basis will be essential in the near-term.

Section III - Rate Structure Analysis

In Phase II of the Rate Study, we examined the Utility's current water and sewer rates and determined rate structure modifications that should be considered to 1) conform with generally accepted rate making practice in terms of fair and equitable distribution of the costs of service, 2) provide additional fiscal stability and ensure adequate recovery of fixed costs, 3) provide incentives for water conservation, and 3) meet the Utility's objectives regarding impact upon its customers to the greatest extent possible.

A. Analysis of the Current User Charge Rate Structure

We reviewed the current rate structure and have identified the following areas where modifications should be considered. Specific rates and charges which reflect these suggested rate structure modifications are presented in the next section.

1. Allocation of Costs

Current Rates – Our evaluation of the cost of service for the water and sewer systems respectively indicated that the current allocation of costs between water and sewer as reflected in the current rates is adequate. Schedules supporting this conclusion of allocation of costs are presented in Appendix A.

Recommendation – Implement the specific rates recommended for FY 2009 and implement the rate revenue adjustments recommended in Table II.1 through FY 2013 in order to maintain the appropriate level of cost recovery from water rates and sewer rates over the next five years.

2. Water Rates

a. Water Fixed Monthly Charge

Current Rates - The current water fixed monthly charges were derived from the fixed monthly charges recommended in the last rate study conducted in

UTILITY RATE STUDY
III. RATE STRUCTURE ANALYSIS

1996. Based upon our assessment the current costs of service, we conclude that the current fixed monthly charge structure is a generally fair and equitable method to recover customer costs (meter reading and maintenance, billing and customer service, etc.), a portion of fixed costs associated with average day usage and base O&M costs of the system. However, the current fixed charges are very low (see the survey results of FY 2009 fixed monthly charges in Table III.1) and provide only about 16% of the water system’s rate revenue.

Table III.1 – Water & Sewer Fixed Monthly Charge Survey

Entity	W&S Fixed Monthly Charge
Miami-Dade County	\$6.45
Hollywood	\$6.68
Ft. Lauderdale	\$8.55
Winter Haven	\$13.61
Boynton Beach	\$16.87
Orlando	\$18.66
Coconut Creek	\$18.94
Palm Beach County	\$19.02
Pembroke Pines	\$19.50
Fort Myers	\$19.80
Pompano Beach	\$21.20
West Palm Beach	\$24.11
Tamarac	\$24.16
Sunrise	\$24.82
Cape Coral	\$26.19
Broward County	\$26.24
Lee County	\$27.22
Boca Raton	\$27.37
Margate	\$27.42
Coral Springs	\$27.56
Port LaBelle	\$30.00
LaBelle	\$31.33
Marco Shores	\$33.12
North Miami	\$33.73
North Port	\$35.30
Moore Haven	\$36.70
Punta Gorda	\$37.19
Collier County	\$40.52
Charlotte County	\$42.50
Marco Island	\$43.78
Naples	\$45.50
Low	\$6.45
High	\$45.50
Average	\$26.26
Fort Lauderdale	\$8.55

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

Recommendation – Maintain the current fixed monthly charge structure by meter size, but increase the level or portion of water rate revenue recovered from the fixed monthly charges and update the proportionate relationship of the fixed monthly charges by meter size.

b. Water Usage Rates

Current Rates – Usage charges are intended to recover the portion of the water system O&M, debt service, and capital funding costs not recovered by the fixed monthly charges. The Utility’s current water usage rate structure differs by customer type and reflects inclining block rate structures for residential and irrigation accounts. However the rates, usage in each block or tier, and the number of tiers varies between the single-family and multi-family residential customer as well as between residential and irrigation customer classes. It is common in most utility rate structures to have consistency between the inclining block rates and tiers within the residential class as a whole, as well as a rational linkage from the residential inclining block rate structure to that of separate irrigation accounts.

The Utility currently employs a single uniform rate per thousand gallons for commercial and bulk/master metered accounts (although the rate for each customer class is slightly different). The use of a single or uniform rate is a common practice, as non-residential customers do not exhibit as predictable a discretionary usage profile as the residential class. Many businesses or bulk customers use water in either the production of products or the delivery of service or for non-discretionary purposes. Although there are methods that are used to implement inclining block water rates for non-residential customers, all inevitably assess a punitive rate upon many non-residential customers who have little ability to reduce usage in response to price.

Recommendation –

Individually Metered Single Family Residential - This Rate Study recommends that the current inclining block rate structure for individually

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

metered single family residential customers be updated to include additional blocks or tiers as well as new unit rates for consumption in each respective tier. This new structure will provide a stronger price signal to high volume water users, while continuing to sheltering usage within normal ranges from increases applied to the higher ranges of usage where conservation is targeted.

The proposed water usage rate structure for single-family residential customers should have usage block ranges as follows:

- The first block should be set at 3,000 gallons per month to recognize a modest level of essential domestic use.
- The top range of the second block should be set at the 1,000 gallon increment that is closest to the average single family residential monthly water usage, which is 8,000 gallons per month.
- The top range of the third block should be set at 12,000 gallons per month.
- The top range of the fourth block should be set at 20,000 gallons per month.
- The fifth block should be set to include all water usage over 20,000 gallons per month.

It is recommended that the second block rate be considered the base usage rate and that the first block rate be set at 45% of the second, or base block rate for affordability purposes. The higher block rates should be set at multiples of the preceding block rate. In the recommended rate structure, Block three is set at 1.25 times the Block two rate; Block four is set at 1.35 times the Block three rate, and Block five is set at 1.45 times the Block four rate.

It is important to note that these recommended rates were developed assuming modified Phase II water use restrictions are in place year-round. As such, we recommend that the Utility revises its drought rate surcharge schedule to not only sync up with the new recommended block ranges, but to also only be applicable in periods of water use restrictions greater than Phase II.

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

Multi-Family Residential – This Rate Study also recommends revising the current two-tier (or three-tier depending upon the number of units) inclining block rate structure that is applied to each dwelling unit of multi-family accounts to a uniform five-tier structure consistent with that recommended for individually metered single family residential customers. As such, the rates per block or tier would be the same, however, we do recommend adjusting the consumption in each tier per dwelling unit to reflect that the average monthly multi-family consumption per dwelling unit (3,000 gallons per month per unit) is about 40% of the monthly average for single-family users (8,000 gallons per month). As such, the amount of water use in each tier per multi-family dwelling unit should be adjusted as follows:

- The first block should be set at 1,000 gallons per unit month.
- The top range of the second block should be set at 3,000 gallons per unit per month.
- The top range of the third block should be set at 5,000 gallons per unit per month.
- The top range of the fourth block should be set at 8,000 gallons per unit per month.
- The fifth block should be set to include all water usage over 8,000 gallons per unit per month.

Irrigation – For irrigation meters, we recommend replacing the existing two-tier inclining block rate structure with a three-tier structure that is scaled by meter size (see Table III.2 for a list of meter equivalency factors by meter size)¹⁰. The first block of this three-tier structure for a 5/8” irrigation meter would include all use up to 12,000 gallons, the second would be for all use up to 20,000 gallons per month, and the third tier would be applied to use above 20,000 gallons per month. The rate for the first tier is the same as the recommended residential Block 3 rate, the rate for the second tier equals the residential Block 4 rate, and the rate for the third tier is equal to the residential Block 5 rate. This is intended to provide a consistent price signal that

¹⁰ For example, based upon the AWWA meter equivalency factor guidelines, this would mean that a 2” irrigation meter would have 8 times the amount of water use in the first tier as a 5/8” irrigation meter.

UTILITY RATE STUDY
III. RATE STRUCTURE ANALYSIS

recognizes a reasonable amount of irrigation usage per month, but that also charges higher rates for larger amounts of irrigation that are likely excessive.

Table III.2 – Meter Equivalency Factors

AWWA Meter Equivalency Factors	
<u>Meter Size</u>	<u>Factor</u>
5/8"	1.00
3/4"	1.50
1"	2.50
1.5"	5.00
2"	8.00
3"	15.00
4"	25.00
6"	50.00
8"	80.00
10"	115.00
12"	215.00

Commercial & Bulk Master-Metered Classes – It is recommended that the City does not apply an inclining block rate structure to these customers due to concerns regarding the punitive nature of such a structure whereby higher rates would be charged for usage that in many cases is a function of business processes over which the customer has little discretion. However, it is recommended that a uniform rate is applied to both of these customer classes (when there are no service agreements that specify otherwise) that is based on the cost of water per thousand gallons for FY 2009 (i.e. dividing the usage portion of the water system revenue requirement by total expected water use).

3. Sewer Rates

a. Sewer Fixed Monthly Charge

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

Current Rates - The current sewer fixed monthly charges were derived from the fixed monthly charges recommended in the last rate study conducted in 1996. Based upon our assessment the current costs of service, we conclude that the current fixed monthly charge structure is a generally fair and equitable method to recover customer costs (meter reading and maintenance, billing and customer service, etc.), a portion of fixed costs associated with average day usage and base O&M costs of the system. However, the current fixed charges are exceptionally low (see Table III.1 for a survey of FY 2009 fixed monthly charges) and provide only 13% of the sewer system's rate revenue.

Recommendation – Maintain the current fixed monthly charge structure by meter size, but increase the level or portion of sewer rate revenue recovered from the fixed monthly charges and update the proportionate relationship of the fixed monthly charges by meter size.

b. Sewer Usage Rates

Current Rates - The current sewer usage rate structure differs by customer class. For single-family residential customers, it is a two-tier rate structure with a cap or maximum billing amount of 20,000 gallons per month, while master-metered multi-family accounts have alternative caps per unit based upon the total number of units for each account. For commercial accounts, there is a uniform rate structure with no cap on sewer billings. Revenues from the usage rates are intended to recover the sewer system O&M, debt service, and capital costs not recovered from the fixed monthly sewer service charges.

Recommendation – Studies have shown that for the residential class, usage above a certain level per month is likely to be for irrigation and other uses that do not result in a return of water to the sewer system. The Utility's current rate structure recognizes that by not applying sewer usage charges for water use above a certain level per month to its residential customers. Therefore, to be consistent with the residential water usage charge rate structure, we recommend that the single family rates for each sewer usage rate tier are applied to multi-family accounts, and that the amount of use in each tier

(including the amount of the sewer billing maximum or cap) be scaled per unit for multi-family accounts consistent with the recommended water usage rate structure. This means that for each dwelling unit of a multi-family account there would be 1,000 gallons per unit per month in the first tier (subject to the single family first tier sewer usage charge) and all remaining use up to a cap or maximum of 8,000 gallons per unit per month would be assessed the single-family residential second tier sewer usage charge.

Finally, it is also recommended that a uniform rate is applied to commercial and master metered/bulk accounts (when there are no service agreements specifying otherwise) that is based upon the current cost per thousand gallons for FY 2009 (i.e. dividing the usage portion of the sewer system revenue requirement by total expected billed sewer use).

4. Price Elasticity

As water and sewer rates increase, discretionary water and sewer usage will generally decline. Because changes in water use in response to price are a function of the increase in price and the level of discretionary water usage, the recommended modifications to the current residential usage rate structure are expected to have an impact on total water usage. That effect has been factored into the calculations of the proposed rates presented in this Report. However, the anticipated response due to price has been mitigated somewhat due to the recent enactment of water use restrictions that are likely to be extended indefinitely.

In fact, as part of the Rate Study, we conducted a five-year analysis of historical demands in order to be able to more accurately project water use in the expected phase of year-round water use restrictions. The historical demand analysis shows that there has been a significant reduction in water usage following the implementation of water use restrictions that occurred midway through FY 2007. When compared to FY 2005 (which was thought to be a representative year of normal water usage), water demands in FY 2007 (which reflected water use restrictions and corresponding drought rate surcharges for only 5 months) were determined to be 13% lower. Moreover, reflecting year-round

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

water use restrictions at the expected levels (modified Phase II) is expected to result in an additional 10% demand reduction from the water use levels in FY 2007. This results in assumed demands reflecting year-round water use restrictions that are almost 25% lower than 2005. Even though this usage reduction has already been taken into account in the revenue projections for the Utility, we are forecasting an additional usage reduction from implementation of the recommended rate structure.

Specifically, the recommended rate structure is anticipated to produce an additional reduction in water use for different customer classes depending upon the magnitude of the change in price and level of discretionary use within each tier. Single-family residential usage is expected to reduce in response to price by various amounts in each tier, ranging from a 0% reduction in usage in the first tier (as this level of use is for essential domestic purposes and likely cannot be significantly reduced), up to a 19% reduction in the fifth tier (which is normally considered to be highly discretionary as it is typically for outdoor purposes). The water usage in this class as a whole is anticipated to decrease about 3.5% due to the rate design changes recommended herein. There are no usage reductions forecasted for the multi-unit residential customer class, as the vast majority of use falls in the first two tiers of the proposed rate structure (80%) indicating very little discretionary use for these customers.

For non-residential customers, very minimal demand reductions are anticipated (.8% for the class as a whole) given that these customers will continue to see a uniform rate per thousand gallons of water use and typically do not have as much ability to reduce their usage as single-family customers. The discretionary use that the non-residential class has is typically captured via a separate irrigation meter. For all irrigation meters, the analysis anticipates a 6% reduction in use in the first tier, and about 19% in each of the second and third tiers, recognizing that irrigation is more elastic given that it is discretionary in nature. For all irrigation meters, the analysis reflects a total usage reduction of about 10%. Finally, the analysis does reflect a usage reduction for the master-metered bulk customers of the Utility of 1.50%, recognizing that conservation initiatives/awareness is happening in the surrounding communities where the water is being delivered due to continued water use restrictions. In total, across all customer classes, the analysis results in a water usage reduction from the recommended rate structure changes alone of 3%.

UTILITY RATE STUDY
III. RATE STRUCTURE ANALYSIS

B. Schedule of Rates with Rate Structure Modifications

After evaluation of the current rate structure, it was determined that adjustments discussed in Section III.A.2 and 3 should be made to the water and sewer rates to address the Utility’s fixed cost recovery, cost of service, and water conservation objectives. It is our understanding that the Utility’s customer billing system can accommodate the recommended changes in rate structure. Table III.3 presents the specific water and sewer rates based upon 1) the total revenue requirement for FY 2009 as determined in the Revenue Sufficiency Analysis (which reflects a 25% total increase in water and sewer rate revenue), and 2) the rate structure modifications discussed in the previous section.

Table III.3– Proposed FY 2009 Water and Sewer Rates

FIXED CHARGES	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
5/8"	4.71	6.92	4.71	6.92	4.71	6.92	15.35	23.98	4.71	4.71
3/4"	6.54	9.86	6.54	9.86	6.54	9.86	21.95	34.57	6.54	6.54
1"	10.21	15.75	10.21	15.75	10.21	15.75	35.16	55.75	10.21	10.21
1.5"	19.38	30.45	19.38	30.45	19.38	30.45	68.54	109.28	19.38	19.38
2"	30.39	48.10	30.39	48.10	30.39	48.10	108.52	173.40	30.39	30.39
3"	56.07	89.28	56.07	89.28	56.07	89.28	201.33	322.23	56.07	56.07
4"	92.75	148.11	92.75	148.11	92.75	148.11	334.50	535.77	92.75	92.75
6"	184.46	295.17	184.46	295.17	184.46	295.17	667.22	1,069.32	184.46	184.46
8"	294.51	471.65	294.51	471.65	294.51	471.65	1,065.97	1,708.76	294.51	294.51
10"	422.90	677.54	422.90	677.54	422.90	677.54	1,914.83	3,070.00	422.90	422.90
12"	789.74	1,265.80	789.74	1,265.80	789.74	1,265.80	3,078.81	4,936.56	789.74	789.74
16"	1,284.97	2,059.96	1,284.97	2,059.96	1,284.97	2,059.96	5,203.17	8,343.18	1,284.97	1,284.97

USAGE CHARGES	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
Block Ranges - (1,000 gal. per mo.)	(per unit)	(per unit)	(per unit)	(per unit)	(per meter)	(per meter)	(per meter)	(per meter)	(per meter)	(per meter)
Block 1	0 - 3	0 - 3	0 - 1	0 - 1	> 0	> 0	> 0	> 0	0 -12	N/A
Block 2	4 - 8	4 - 20	2 - 3	2 - 8					13 - 20	
Block 3	9 - 12	> 20	4 - 5	> 8					>20	
Block 4	13 - 20		6 - 8							
Block 5	>20		>8							

Usage Rates (\$ / 1,000 gal.)	Single-Family Res.		Multi-Family Res.		Commercial		Master-Metered		Irrigation	Fire Service
	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Water
Block 1	\$ 1.44	\$ 2.55	\$ 1.44	\$ 2.55	\$ 3.49	\$ 4.54	\$ 3.49	\$ 4.54	\$ 4.00	N/A
Block 2	\$ 3.20	\$ 5.65	\$ 3.20	\$ 5.65					\$ 5.39	
Block 3	\$ 4.00	\$ -	\$ 4.00	\$ -					\$ 7.82	
Block 4	\$ 5.39		\$ 5.39							
Block 5	\$ 7.82		\$ 7.82							

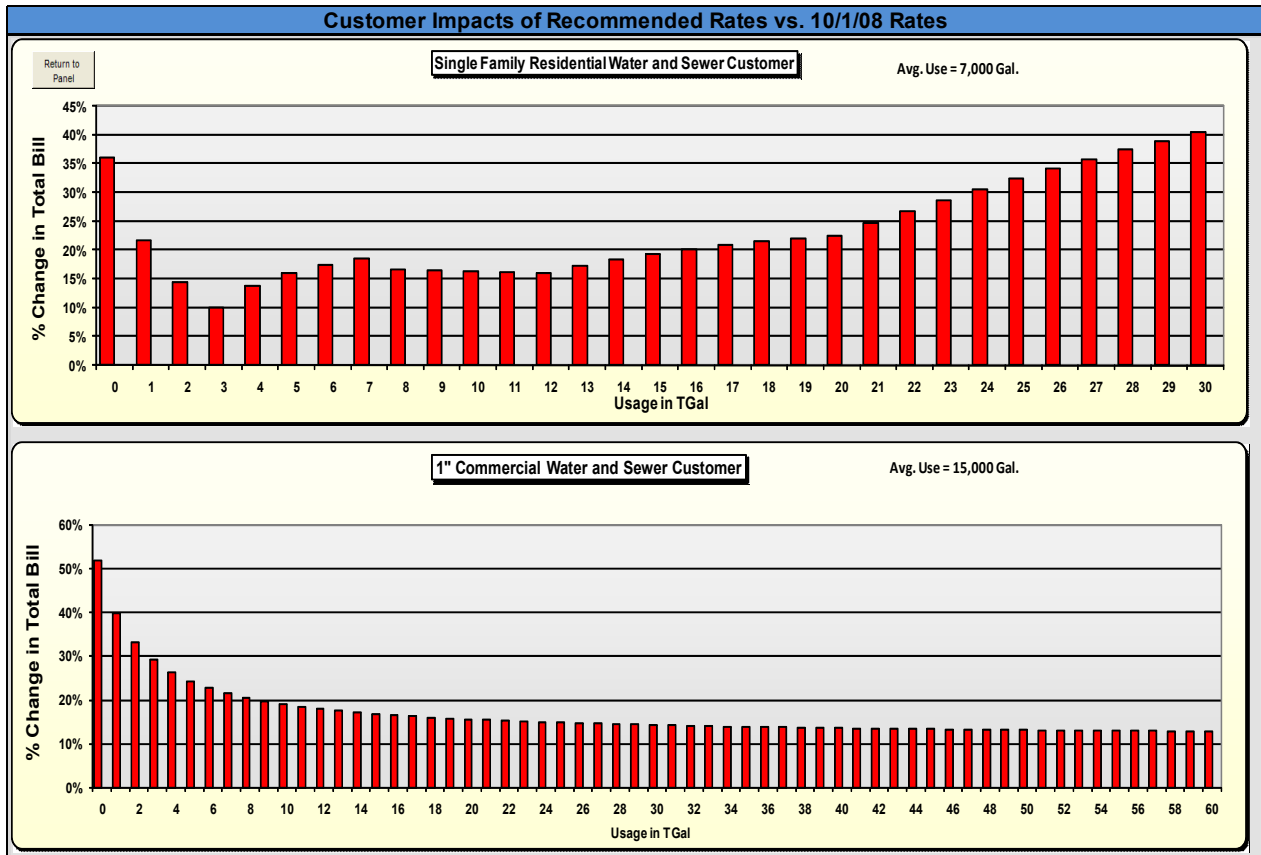
Note: The use per block shown for Irrigation above is for a 5/8" meter. The use in each block for all other meter sizes is adjusted based upon the meter equivalency factor identified on Table III.2.

C. Customer Impact Analysis

In considering implementation of the recommended changes to the water and sewer rate structure, it is important to examine the impact that those adjustments will have upon the monthly water and sewer bill of the Utility’s customers. The proposed rate design included the objective of minimizing the impact to water customers with reasonable or average usage, while providing a price incentive for water conservation to customers with higher levels of usage.

Implementation of the recommended changes to the water and sewer rate structure will affect both residential and non-residential customers. Furthermore, within each class of customer, the recommended changes to the water and sewer rate structure will impact customers with different usage patterns differently. Table III.4 presents a graphical illustration of the average increase in the combined monthly bill resulting from the proposed rate structure at various amounts of monthly water use.

Table III. 4 – Customer Impact Graph of Proposed Rates



UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

Table III.5 below shows the impact upon the monthly water and sewer bill of single family residential customers with a 5/8" x 3/4" meter if the rate structure modifications discussed in Section III are implemented (compared against the rates currently in effect from the beginning of FY 2009, including drought rate surcharges).

Table III.5 – Single Family Residential Customer Impact Analysis

Single Family Residential Bill Comparison							
% of Bills	Cumulative %	Water Use	Rates - 10/1/08	Rates - 7/1/09	\$ Change	% Change	
			W & S	W & S	W & S	W & S	
7.9%	7.9%	0	\$ 8.55	\$ 11.63	\$ 3.08	36.0%	
5.7%	13.6%	1	\$ 12.85	\$ 15.62	\$ 2.77	21.6%	
8.5%	22.1%	2	\$ 17.15	\$ 19.61	\$ 2.46	14.3%	
10.2%	32.3%	3	\$ 21.45	\$ 23.60	\$ 2.15	10.0%	
10.4%	42.7%	4	\$ 28.54	\$ 32.45	\$ 3.91	13.7%	
9.5%	52.2%	5	\$ 35.63	\$ 41.30	\$ 5.67	15.9%	
8.0%	60.2%	6	\$ 42.72	\$ 50.15	\$ 7.43	17.4%	
6.4%	66.6%	7	\$ 49.81	\$ 59.00	\$ 9.19	18.5%	
5.2%	71.9%	8	\$ 58.21	\$ 67.85	\$ 9.64	16.6%	
4.1%	76.0%	9	\$ 66.61	\$ 77.50	\$ 10.89	16.3%	
3.3%	79.3%	10	\$ 75.01	\$ 87.15	\$ 12.14	16.2%	
2.6%	81.9%	11	\$ 83.41	\$ 96.80	\$ 13.39	16.1%	
2.1%	84.0%	12	\$ 91.81	\$ 106.45	\$ 14.64	15.9%	
1.8%	85.8%	13	\$ 100.21	\$ 117.49	\$ 17.28	17.2%	
1.5%	87.2%	14	\$ 108.61	\$ 128.53	\$ 19.92	18.3%	
1.2%	88.5%	15	\$ 117.01	\$ 139.57	\$ 22.56	19.3%	
1.1%	89.5%	16	\$ 125.41	\$ 150.61	\$ 25.20	20.1%	
0.9%	90.5%	17	\$ 133.81	\$ 161.65	\$ 27.84	20.8%	
0.8%	91.3%	18	\$ 142.21	\$ 172.69	\$ 30.48	21.4%	
0.7%	92.0%	19	\$ 150.61	\$ 183.73	\$ 33.12	22.0%	
0.6%	92.6%	20	\$ 159.01	\$ 194.77	\$ 35.76	22.5%	
0.6%	93.2%	21	\$ 162.55	\$ 202.59	\$ 40.04	24.6%	
0.5%	93.7%	22	\$ 166.09	\$ 210.41	\$ 44.32	26.7%	
0.5%	94.2%	23	\$ 169.63	\$ 218.23	\$ 48.60	28.7%	
0.4%	94.6%	24	\$ 173.17	\$ 226.05	\$ 52.88	30.5%	
0.4%	95.0%	25	\$ 176.71	\$ 233.87	\$ 57.16	32.3%	
0.3%	95.4%	26	\$ 180.25	\$ 241.69	\$ 61.44	34.1%	
0.3%	95.7%	27	\$ 183.79	\$ 249.51	\$ 65.72	35.8%	
0.3%	96.0%	28	\$ 187.33	\$ 257.33	\$ 70.00	37.4%	
0.3%	96.2%	29	\$ 190.87	\$ 265.15	\$ 74.28	38.9%	
3.8%	100.0%	30+	\$ 194.41	\$ 272.97	\$ 78.56	40.4%	

D. Rate Survey Results

As part of this Rate Study, we performed a comparative survey of other utilities' single family residential water and sewer rates in the City's surrounding area. This survey included monthly residential water, sewer, and combined bill calculations based upon the rates in effect for each community's service area in FY 2009 and did not include any utility taxes or water use restriction/drought rate surcharges.

The results of the survey indicate that for low monthly use (4,000 gallons per month), the City has one of the lowest combined water and sewer bills of those utilities surveyed, due in large part to its low fixed monthly charges. However, at larger volumes of monthly usage (15,000 gallons per month) the City has one of the higher monthly bills, indicative of the large portion of revenue recovered in its usage rates.

Perhaps the most relevant calculation is for a single family residential customer using 7,000 gallons per month, which is a typical residential customer's monthly use in the City. At this level of usage the City has a monthly bill that is slightly under the average of the utilities surveyed. Included in Appendix C of this Report is Schedule C1, which contains the specific calculation of water, sewer, and combined bills by community at 7,000 gallons per month. As can be seen from Schedule C1, the City's current monthly bill (excluding drought rate surcharges) of \$47.00 is slightly less than the average of the utilities surveyed of \$50.33.

E. Impact Fees

Impact fees are established in order to recover the proportionate share of the capital costs a utility incurs to provide the "backbone" water supply, treatment and distribution facilities, and sewer collection, treatment and disposal facilities necessary to meet a new customer's capacity requirements. While the Utility already has a form of capacity expansion fees, it recommended that the impact fees calculated as part of this analysis replace these fees and are applied to all growth and redevelopment as appropriate (except we recommend continuing the additional \$1,000 per ERU charge applicable to new sewer connections under the WaterWorks 2011 program).

UTILITY RATE STUDY

III. RATE STRUCTURE ANALYSIS

There are several different methodologies that have been accepted for calculating impact fees. However, after evaluation of the Utility's current system and CIP we concluded that a Plant-in-Service methodology for determining water and sewer impact fees would be the most appropriate. This methodology is considered the fairest methodology of the alternatives considered because it provides for a reasonable method to include all eligible assets in the impact fee calculation while avoiding double counting the asset value of original projects and their replacement by including all assets, even rehabilitation and replacement assets, and depreciating each asset.

Although the City Commission has the discretion to adopt impact fees at a percentage of the full cost recovery fees, or to phase in increases to full cost recovery over a multi-year period, we recommend adoption of full cost recovery fees to ensure that to the extent possible growth pays its fair share of the capital assets necessary to serve it.

We also recommend that the Utility implement an annual escalation policy for impact fees that applies appropriate construction cost escalation factors for no more than five years, at which time the impact fees should be recalculated to ensure that fundamental changes in the underlying cost of capital assets are regularly accounted for in the fees. This would be a cost-effective way to keep the fee generally in line with escalating construction costs and to also provide a mechanism to periodically recalculate the fees to reflect changing capital requirements in response to regulatory requirements, growth/redevelopment, etc.

The recommended impact fee per ERU (based upon 300 GPD) for water service is \$1,511 and the recommended fee for sewer service is \$1,869. The current expansion fees for combined water and sewer service of \$1,386 and \$651 respectively. As such, the new fees represent a \$125 and \$1,218 increase over the existing fees for water and sewer respectively. For a combined water and sewer ERU, the total proposed impact fee is \$3,381 versus the current total of \$2,037, representing an increase of \$1,344, or 66%. Appendix B includes supporting schedules presenting the basis for the proposed impact fees and Appendix C includes a survey of local water and sewer impact fees (on a per ERU basis) that were in effect in 2008.

F. Specific Miscellaneous Service Charges

The Utility currently has an array of specific miscellaneous service charges that are assessed to customers for the performance of specific services that benefit only the customer for whom the service is provided. Examples of these types of fees include such things as service installation fees, meter testing fees, turn-on/turn-off fees to name a few. As part of the Study, we prepared detailed cost computation templates that were provided to Utility staff to be populated with actual cost information for each type of specific service in order to determine whether the current fees are recovering the current costs incurred to provide each respective service. Upon completion of the cost computation templates, it is anticipated that staff will initiate the appropriate ordinance and/or resolution adjustments to update the appropriate specific miscellaneous service charges.

G. Service Availability Fees

The purpose of a service availability fee is to recover a portion of the costs that the utility incurs to maintain a readiness to serve properties that at one time had active utility service but are currently inactive.

Typically service availability fees are equal to the fixed monthly charge of the user fee that is paid by properties that are currently receiving utility service, less the portion of the fixed charge associated with the costs of meter reading/customer service (if a utility does not read the meters and/or issue bills for inactive accounts). The fixed monthly charge component of the user fee is typically structured to represent a “readiness-to-serve” charge and it is an appropriate policy to assess that charge to properties that are connected to the system and at one time received active service but are currently inactive.

As the Utility continues to read the meters for all inactive accounts, we recommend applying the full fixed monthly charges as the amount of the service availability fees. These fees for FY 2009 are presented in Table III.5 for consideration by the Utility. It is important to note that these fees should adjust consistent with adjustments to the water and sewer fixed monthly charges.

UTILITY RATE STUDY
III. RATE STRUCTURE ANALYSIS

Table III.6 – Water & Sewer Service Availability Fees

<u>Meter Size</u>	<u>Water Service Availability Fee</u>	<u>Sewer Service Availability Fee</u>
5/8"	\$4.71	\$6.92
3/4"	\$6.54	\$9.86
1"	\$10.21	\$15.75
1.5"	\$19.38	\$30.45
2"	\$30.39	\$48.10
3"	\$56.07	\$89.28
4"	\$92.75	\$148.11
6"	\$184.46	\$295.17
8"	\$294.51	\$471.65
10"	\$422.90	\$677.54
12"	\$789.74	\$1,265.80
16"	\$1,284.97	\$2,059.96

Appendix A
Supporting Financial Analysis Schedules for
the Revenue Sufficiency Analysis

**UTILITY RATE STUDY
APPENDIX A**

Schedule A1 – Cost Allocation Criteria

COST ALLOCATION CRITERIA	CODE	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
ACCOUNTS / ERU'S	ACC											
WATER		117,123	117,123	117,373	117,873	118,373	119,123	119,873	120,623	121,373	122,123	122,873
RECLAIMED		0	0	0	0	0	0	0	0	0	0	0
SEWER		76,468	80,858	83,458	84,393	84,893	85,643	86,393	87,143	87,893	88,643	89,393
TOTAL		193,590	197,980	200,830	202,265	203,265	204,765	206,265	207,765	209,265	210,765	212,265
CAPITAL PROJECTS \$	CIP											
WATER		\$ 17,610,615	71,627,128	70,462,189	29,207,969	14,936,139	18,669,732	21,014,588	22,484,714	19,927,162	20,724,249	21,553,219
SEWER		\$ 112,810,276	42,838,879	7,704,538	3,057,277	6,335,372	6,587,408	7,456,233	39,513,409	40,963,000	42,601,520	12,202,833
TOTAL		\$ 130,420,891	114,466,007	78,166,727	32,265,246	21,271,510	25,257,140	28,470,822	61,998,122	60,890,163	63,325,769	33,756,051
EXISTING DEBT SERVICE	EDS											
WATER		\$ 5,935,042	8,594,777	8,592,524	8,594,162	8,594,310	8,593,747	8,595,447	8,602,722	8,609,362	8,608,062	8,607,920
SEWER		\$ 8,902,562	12,892,165	12,888,787	12,891,243	12,891,464	12,890,621	12,893,171	12,904,083	12,914,043	12,912,093	12,911,879
TOTAL		\$ 14,837,604	21,486,942	21,481,311	21,485,405	21,485,774	21,484,368	21,488,618	21,506,805	21,523,405	21,520,155	21,519,799
SRF DEBT SERVICE	SRF											
WATER		\$ 0	0	0	0	0	0	0	0	0	0	0
SEWER		\$ 3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
TOTAL		\$ 3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
FLOW (ADF IN MGD)	FLOW											
WATER		12.32	12.32	12.35	12.40	12.45	12.53	12.61	12.69	12.77	12.85	12.92
SEWER		7.47	7.90	8.15	8.24	8.29	8.37	8.44	8.51	8.59	8.66	8.73
TOTAL		19.79	20.22	20.50	20.64	20.74	20.90	21.05	21.20	21.35	21.51	21.66
MILES OF DIST/COLL PIPE	MP											
WATER		770	770	770	770	770	770	770	770	770	770	770
SEWER		330	330	330	330	330	330	330	330	330	330	330
TOTAL		1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,100

**UTILITY RATE STUDY
APPENDIX A**

Schedule A2 – Cost Allocation Percentages and Key Codes

ALLOCATION %'s & KEY CODE		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
ACCOUNTS %												
WATER	ACC-W	60.50%	59.16%	58.44%	58.28%	58.24%	58.18%	58.12%	58.06%	58.00%	57.94%	57.89%
SEWER	ACC-S	39.50%	40.84%	41.56%	41.72%	41.76%	41.82%	41.88%	41.94%	42.00%	42.06%	42.11%
CAPITAL PROJECTS %												
WATER	CIP-W	13.50%	62.58%	90.14%	90.52%	70.22%	73.92%	73.81%	36.27%	32.73%	32.73%	63.85%
SEWER	CIP-S	86.50%	37.42%	9.86%	9.48%	29.78%	26.08%	26.19%	63.73%	67.27%	67.27%	36.15%
EXISTING DEBT SERVICE ALLOCATION %												
WATER	EDS-W	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
SEWER	EDS-S	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
SRF DEBT SERVICE ALLOCATION %												
WATER	SRF-W	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SEWER	SRF-S	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
FLOW ALLOCATION %												
WATER	FLOW-W	62.3%	62.3%	60.9%	60.2%	60.1%	60.0%	60.0%	59.9%	59.8%	59.8%	59.7%
SEWER	FLOW-S	37.7%	37.7%	39.1%	39.8%	39.9%	40.0%	40.0%	40.1%	40.2%	40.2%	40.3%
MILES OF DIST/COLL PIPE ALLOCATION %												
WATER	MP-W	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
SEWER	MP-S	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
TOTAL WTD AVERAGE ALLOCATION %												
WATER	WTD-W	46.6%	52.3%	55.6%	56.9%	55.8%	56.6%	57.1%	54.4%	53.5%	52.9%	54.6%
SEWER	WTD-S	53.4%	47.7%	44.4%	43.1%	44.2%	43.4%	42.9%	45.6%	46.5%	47.1%	45.4%

**UTILITY RATE STUDY
APPENDIX A**

Schedule A3 – Annual Costs to be Allocated

COST ALLOCATION		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
ADMINISTRATION DIVISION 01	WTD	\$ 4,245,660	3,953,123	4,122,289	4,298,959	4,483,478	4,676,212	4,877,539	5,087,860	5,307,594	5,537,179	5,777,075
CUSTOMER SERVICE DIVISION 05	ACC	4,283,839	4,547,627	4,747,950	4,957,452	5,176,574	5,405,776	5,645,541	5,896,379	6,158,823	6,433,434	6,720,801
DISTRIBUTION & COLLECTION DIVISION 66	MP	16,331,996	17,565,013	18,312,537	19,093,178	19,908,467	20,760,013	21,649,502	22,578,700	23,549,461	24,563,731	25,623,548
UTILITIES ENGINEERING OPERATIONS 06	CIP	2,610,688	2,807,013	2,928,220	3,054,890	3,187,281	3,325,664	3,470,323	3,621,556	3,779,675	3,945,010	4,117,905
TREATMENT DIVISION 67	FLOW	11,630,392	11,963,890	12,465,278	12,988,137	13,533,414	14,102,096	14,695,217	15,313,857	15,959,147	16,632,267	17,334,455
ENVIRONMENTAL RESOURCES - 69	WTD	694,514	814,713	850,385	887,681	926,678	967,459	1,010,106	1,054,711	1,101,366	1,150,170	1,201,227
DEPARTMENT SUPPORT DIVISION 70	WTD	13,654,997	13,911,267	14,361,616	14,827,163	15,308,453	15,806,052	16,320,550	16,852,558	17,402,713	17,971,676	18,560,134
TRANSFERS	CIP	7,927,520	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
SRF DEBT SERVICE	SRF	3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
EXISTING DEBT SERVICE	EDS	14,837,604	21,486,942	21,481,311	21,485,405	21,485,774	21,484,368	21,488,618	21,506,805	21,523,405	21,520,155	21,519,799
NEW REV BOND DEBT SERVICE	CIP	-	1,942,258	6,224,114	8,760,243	9,932,407	11,403,757	13,056,830	15,606,628	19,550,206	23,767,418	27,177,907
TOTAL ANNUAL OPERATING COST REQUIREMENTS		\$ 79,971,769	87,338,820	93,840,673	98,700,081	102,289,501	106,278,371	110,561,201	115,866,028	122,679,364	129,868,014	136,379,825

UTILITY RATE STUDY APPENDIX A

Schedule A4 – Allocation of Costs to Water and Sewer

COST ALLOCATION		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
WATER												
ADMINISTRATION DIVISION 01	WTD-W	\$ 1,979,929	2,065,678	2,291,639	2,443,975	2,503,517	2,645,955	2,783,870	2,767,398	2,840,677	2,926,606	3,156,784
CUSTOMER SERVICE DIVISION 05	ACC-W	2,591,734	2,690,319	2,774,878	2,889,018	3,014,606	3,144,822	3,280,949	3,423,271	3,572,082	3,727,692	3,890,427
DISTRIBUTION & COLLECTION DIVISION 66	MP-W	11,432,397	12,295,509	12,818,776	13,365,224	13,935,927	14,532,009	15,154,651	15,805,090	16,484,623	17,194,612	17,936,483
UTILITIES ENGINEERING OPERATIONS 06	CIP-W	352,519	1,756,489	2,639,598	2,765,425	2,238,002	2,458,285	2,561,479	1,313,421	1,236,952	1,291,060	2,629,280
TREATMENT DIVISION 67	FLOW-W	7,240,345	7,447,960	7,595,497	7,822,543	8,128,603	8,464,507	8,811,769	9,173,744	9,551,076	9,944,439	10,354,538
ENVIRONMENTAL RESOURCES - 69	WTD-W	323,881	425,723	472,741	504,650	517,445	547,420	576,521	573,680	589,462	607,908	656,390
DEPARTMENT SUPPORT DIVISION 70	WTD-W	6,367,898	7,269,239	7,983,828	8,429,302	8,548,044	8,943,587	9,315,003	9,166,475	9,314,105	9,498,702	10,141,869
TRANSFERS	CIP-W	1,070,446	1,877,251	2,704,304	2,715,736	2,106,499	2,217,559	2,214,329	1,088,003	981,792	981,792	1,915,498
SRF DEBT SERVICE	SRF-W	-	-	-	-	-	-	-	-	-	-	-
EXISTING DEBT SERVICE	EDS-W	5,935,042	8,594,777	8,592,524	8,594,162	8,594,310	8,593,747	8,595,447	8,602,722	8,609,362	8,608,062	8,607,920
NEW REV BOND DEBT SERVICE	CIP-W	-	1,215,368	4,293,587	6,581,358	7,530,193	8,587,923	9,809,117	11,108,259	12,479,083	13,859,225	15,233,241
TOTAL WATER ALLOCATION		\$ 37,294,191	45,638,312	52,167,372	56,111,395	57,117,145	60,135,815	63,103,136	63,022,064	65,659,214	68,640,098	74,522,430
SEWER												
ADMINISTRATION DIVISION 01	WTD-S	\$ 2,265,731	1,887,445	1,830,650	1,854,983	1,979,962	2,030,257	2,093,669	2,320,462	2,466,917	2,610,573	2,620,291
CUSTOMER SERVICE DIVISION 05	ACC-S	1,692,105	1,857,308	1,973,072	2,068,434	2,161,968	2,260,954	2,364,592	2,473,108	2,586,742	2,705,742	2,830,374
DISTRIBUTION & COLLECTION DIVISION 66	MP-S	4,899,599	5,269,504	5,493,761	5,727,953	5,972,540	6,228,004	6,494,851	6,773,610	7,064,838	7,369,119	7,687,064
UTILITIES ENGINEERING OPERATIONS 06	CIP-S	2,258,169	1,050,524	288,621	289,465	949,280	867,379	908,844	2,308,135	2,542,724	2,653,950	1,488,625
TREATMENT DIVISION 67	FLOW-S	4,390,047	4,515,930	4,869,781	5,165,594	5,404,811	5,637,589	5,883,448	6,140,113	6,408,071	6,687,828	6,979,918
ENVIRONMENTAL RESOURCES - 69	WTD-S	370,633	388,990	377,644	383,031	409,233	420,039	433,585	481,031	511,904	542,262	544,837
DEPARTMENT SUPPORT DIVISION 70	WTD-S	7,287,099	6,642,028	6,377,788	6,397,861	6,760,409	6,862,465	7,005,547	7,686,084	8,088,608	8,472,974	8,418,265
TRANSFERS	CIP-S	6,857,074	1,122,749	295,696	284,264	893,501	782,441	785,671	1,911,997	2,018,208	2,018,208	1,084,502
SRF DEBT SERVICE	SRF-S	3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
EXISTING DEBT SERVICE	EDS-S	8,902,562	12,892,165	12,888,787	12,891,243	12,891,464	12,890,621	12,893,171	12,904,083	12,914,043	12,912,093	12,911,879
NEW REV BOND DEBT SERVICE	CIP-S	-	726,890	1,930,527	2,178,884	2,402,214	2,815,834	3,247,713	4,498,368	7,071,122	9,908,192	11,944,666
TOTAL SEWER ALLOCATION		42,677,578	41,700,508	41,673,301	42,588,686	45,172,355	46,142,556	47,458,065	52,843,964	57,020,150	61,227,916	61,857,395

**UTILITY RATE STUDY
APPENDIX A**

Schedule A5 – Summary of Cost Allocation to Services

SUMMARY OF COST OF SERVICE RESULTS		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
REVENUE ALLOCATION												
WATER RATE REVENUE		\$ 45,538,697	\$ 48,391,046	\$ 53,300,837	\$ 55,959,480	\$ 58,775,564	\$ 61,886,574	\$ 65,182,836	\$ 68,673,916	\$ 72,369,951	\$ 76,281,680	\$ 80,420,469
SEWER RATE REVENUE		\$ 32,969,804	\$ 36,738,077	\$ 41,679,713	\$ 44,054,504	\$ 46,342,627	\$ 48,910,624	\$ 51,635,946	\$ 54,527,032	\$ 57,592,831	\$ 60,842,824	\$ 64,287,049
TOTAL W&S RATE REVENUE		\$ 78,508,501	\$ 85,129,122	\$ 94,980,550	\$ 100,013,984	\$ 105,118,191	\$ 110,797,198	\$ 116,818,782	\$ 123,200,948	\$ 129,962,782	\$ 137,124,504	\$ 144,707,518
	5-Yr Avg.											
WATER RATE REVENUE	56.1%	58.0%	56.8%	56.1%	56.0%	55.9%	55.9%	55.8%	55.7%	55.7%	55.6%	55.6%
SEWER RATE REVENUE	43.9%	42.0%	43.2%	43.9%	44.0%	44.1%	44.1%	44.2%	44.3%	44.3%	44.4%	44.4%
EXPENSE ALLOCATION												
WATER EXPENSES		\$ 37,294,191	\$ 45,638,312	\$ 52,167,372	\$ 56,111,395	\$ 57,117,145	\$ 60,135,815	\$ 63,103,136	\$ 63,022,064	\$ 65,659,214	\$ 68,640,098	\$ 74,522,430
SEWER EXPENSES		\$ 42,677,578	\$ 41,700,508	\$ 41,673,301	\$ 42,588,686	\$ 45,172,355	\$ 46,142,556	\$ 47,458,065	\$ 52,843,964	\$ 57,020,150	\$ 61,227,916	\$ 61,857,395
TOTAL W&S EXPENSES		\$ 79,971,769	\$ 87,338,820	\$ 93,840,673	\$ 98,700,081	\$ 102,289,501	\$ 106,278,371	\$ 110,561,201	\$ 115,866,028	\$ 122,679,364	\$ 129,868,014	\$ 136,379,825
	5-Yr Avg.											
WATER EXPENSES	55.4%	46.6%	52.3%	55.6%	56.9%	55.8%	56.6%	57.1%	54.4%	53.5%	52.9%	54.6%
SEWER EXPENSES	44.6%	53.4%	47.7%	44.4%	43.1%	44.2%	43.4%	42.9%	45.6%	46.5%	47.1%	45.4%
VARIANCE FROM PROPER ALLOCATION												
WATER RATE REVENUE VARIANCE FROM COS		\$ (8,926,889)	\$ (3,907,396)	\$ (499,791)	\$ 898,874	\$ (78,914)	\$ 806,143	\$ 1,491,833	\$ (1,662,229)	\$ (2,812,579)	\$ (3,806,256)	\$ (1,347,513)
SEWER RATE REVENUE VARIANCE FROM COS		\$ 8,926,889	\$ 3,907,396	\$ 499,791	\$ (898,874)	\$ 78,914	\$ (806,143)	\$ (1,491,833)	\$ 1,662,229	\$ 2,812,579	\$ 3,806,256	\$ 1,347,513

Schedule A6 – Revenue Sufficiency Analysis Assumptions

CITY OF FORT LAUDERDALE, FLORIDA Water & Sewer System Financial Management Program Summary <u>Assumptions</u>											
<u>Annual Growth & Cost Escalators:</u>											
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>
<u>Water Growth:</u>											
Water Accounts	N/A	0.00%	0.21%	0.43%	0.42%	0.63%	0.63%	0.63%	0.62%	0.62%	0.61%
Water Use	N/A	0.00%	0.21%	0.43%	0.42%	0.63%	0.63%	0.63%	0.62%	0.62%	0.61%
<u>Sewer Growth:</u>											
Sewer Accounts	N/A	5.74%	3.22%	1.12%	0.59%	0.88%	0.88%	0.87%	0.86%	0.85%	0.85%
Sewer Use	N/A	5.74%	3.22%	1.12%	0.59%	0.88%	0.88%	0.87%	0.86%	0.85%	0.85%
<u>Annual Operating Expenses Cost Escalators:</u>											
CHAR. 10 - Personnel Services/Salaries & Wages	N/A	N/A	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
CHAR. 20 - Personnel Services/Fringe Benefits	N/A	N/A	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
CHAR. 30 - Operating Services, Materials, Supplies	N/A	N/A	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
CHAR. 40 - Other Operating Expenses	N/A	N/A	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
CHAR. 50 - Write Offs	N/A	N/A	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
CHAR. 60 - Capital Outlay	N/A	N/A	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
Payment in lieu of Taxes	N/A	N/A	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Average Annual Cost Escalation:	N/A	N/A	4.64%	4.18%	4.06%	4.14%	4.15%	4.15%	4.16%	4.17%	4.17%
<u>Debt Assumptions:</u>											
Debt Service Coverage - Test 1	1.25										
Debt Service Coverage - Test II includes Impact Fees	1.30										
SRF Debt Service Coverage	1.15										
Term of Conventional Bonds	30 Yrs										
<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012-18</u>							
Conventional Bond Interest Rates	5.75%	5.75%	5.75%	5.75%	5.75%						
<u>Cost of Conventional Borrowing:</u>											
Interest	5.75% Per Year										
Cost of Issuance	0.50% of Par										
Underwriter's Discount	\$2.16 per \$1,000										
Bond Insurance	0 times total Debt Service										
Capitalized Interest	0 Years Interest										
Debt Service Reserve Surety	0.00% of Debt Service										
Debt Service Reserve	1.0 Year(s) of Debt Service										
<u>Other Assumptions:</u>											
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013-18</u>					
<u>Number of Months of O&M Reserve</u>											
Months	2.00	2.00	2.00	2.00	2.00	2.00					
<u>% of Budget Required For Desired Rate Increase</u>											
O&M											
FY 2008 - FY 2018	96.0%	96.0%	96.0%	96.0%	96.0%	96.0%					
Capital											
FY 2008 - FY 2018	80%	80%	80%	80%	80%	80%					
<u>Interest Earnings Rate</u>											
Water/Sewer Enterprise Fund	2.00%	1.50%	1.75%	2.00%	2.00%	2.00%					
<u>Impact Fee Amounts:</u>											
Water:	\$ 1,386	\$ 1,386	\$ 1,511	\$ 1,511	\$ 1,511	\$ 1,511					
Sewer:	\$ 651	\$ 651	\$ 1,869	\$ 1,869	\$ 1,869	\$ 1,869					

**UTILITY RATE STUDY
APPENDIX A**

Schedule A7 – Beginning Balances

CITY OF FORT LAUDERDALE, FLORIDA	
Water & Sewer System Financial Management Program Summary	
<i>Beginning Balances</i>	
<u>FUNDS</u>	<u>Balance as of Sept. 30, 2007</u>
Water Impact Fees	\$ -
Sewer Impact Fees	\$ -
Fund 454 - N.R. P-A-Y-G	\$ 75,739,454
Renewal & Replacement	\$ 3,000,000
Fund 480-485 N.R. Bond Funds	\$ 7,137,344
Revenue Fund	\$ 12,982,537
Restricted Reserves (Debt Service Reserve)	\$ 6,910,461
Total Consolidated Fund Balance	\$ 105,769,795

UTILITY FUND DETAIL	
<u>CURRENT UNRESTRICTED ASSETS</u>	
	<u>9/30/2007</u>
Cash and Cash Equivalents	\$ 749,328
Investments	\$ -
Receivables	
Accounts	\$ 8,713,835
Unbilled Service	\$ 3,256,904
Special Assessments	\$ -
Due From Other Funds	\$ 3,181,029
Due From Other Governments	\$ -
Inventories	\$ 912,910
TOTAL CURRENT UNRESTRICTED ASSETS	\$ 16,814,005
Less: Inventories	\$ (912,910)
Less: Vouchers Payable	\$ (2,615,237)
Less: Contracts Payable	\$ -
Less: Accrued Payroll	\$ (303,322)
Less: Due to Other Governments	\$ -
Less: Current Portion of Long-Term Debt	\$ -
Less: Special Assessments	\$ -
TOTAL UNRESTRICTED WORKING CAPITAL	\$ 12,982,537

RESTRICTED ASSETS	
Cash and Cash Equivalents	\$ 9,868,142
Investments	\$ 5,804,013
Accrued Interest	\$ 46,713
Unamortized Debt Costs	\$ -
TOTAL NONCURRENT RESTRICTED ASSETS	\$ 15,718,868
Less: Vouchers Payable	\$ -
Less: Contracts Payable	\$ -
Less: Accrued Interest	\$ (957,950)
Less: Replacement & Improvement Balance	\$ (3,000,000)
Less: Capital Improvements Balance	\$ -
Less: Deposits	\$ (4,850,457)
NET RESTRICTED BALANCE	\$ 6,910,461
Water Impact Fees	\$ -
Sewer Impact Fees	\$ -
Fund 454 - N.R. P-A-Y-G	\$ 75,739,454
Renewal & Replacement	\$ 3,000,000
Fund 480-485 N.R. Bond Funds	\$ 7,137,344
TOTAL RESTRICTED RESERVES AVAILABLE FOR CIP	\$ 85,876,797

Schedule A8 – Capital Improvements Program

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
Capital Improvement Plan											
Project Descriptions:	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
CONSTRUCTION COST INFLATION FACTORS:*	4.0%	8.2%	12.5%	17.0%	21.7%	26.5%	31.6%	36.9%	42.3%	48.0%	53.9%
1 Non- Waterworks 2011 Projects											
2 City Crews PS Rehab - A12, A28, A32, A34, B10, D32, E4, C3, C4	\$ 131,161	136,407	141,863	147,538	153,439	159,577	165,960	-	-	-	-
3 CMS Building Improvements	\$ 119,600	621,920	-	-	-	-	-	-	-	-	-
4 Construction - Sistrunk Blvd Large Water Main Replacement	\$ -	-	1,940,390	2,018,006	-	-	-	-	-	-	-
5 Dixie Wellfield R&R	\$ 394,680	410,467	426,886	443,961	461,720	480,189	499,396	519,372	540,147	561,753	584,223
6 Fiveash WTP R&R	\$ 3,348,800	3,482,752	3,622,062	3,766,945	2,742,336	2,852,029	2,966,110	3,084,755	3,208,145	3,336,471	3,469,929
7 Fiveash WTP WW2011 Project Funding	\$ -	-	-	-	-	-	-	-	-	-	-
8 Large Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	-
9 Long Term WWTP Upgrades 2014 - 2025	\$ -	-	-	-	-	-	-	4,636,588	4,822,051	5,014,933	5,215,531
10 Peele Dixie R&R	\$ -	932,880	970,195	1,009,003	1,049,363	1,091,338	1,134,991	1,180,391	1,227,606	1,276,711	1,327,779
11 Phase III PS Rehab - A8, A29, B4, B7, D37	\$ 802,316	834,409	867,785	902,497	938,597	976,140	1,015,186	-	-	-	-
12 Prospect Wellfield R&R	\$ -	1,741,376	1,811,031	1,883,472	1,371,168	1,426,015	1,483,055	1,542,377	1,604,072	1,668,235	1,734,965
13 PS Rehab (after WW2011)	\$ -	-	-	-	-	-	-	-	2,291,532	2,383,193	2,478,521
14 Small Water Main Replacement	\$ -	-	-	-	-	5,820,467	6,053,286	6,295,418	6,547,234	6,809,124	7,081,489
15 South Seabreeze Large Water Main	\$ -	-	-	-	-	1,193,196	2,481,847	2,581,121	-	-	-
16 Water Transmission System Telemetry Upgrade and Expansion	\$ -	129,359	269,067	279,830	-	-	-	-	-	-	-
17 WWTP R&R 2007 - 2013	\$ -	-	-	-	-	-	-	-	-	-	-
18 Utility Billing System	\$ 2,511,600	-	-	-	-	-	-	-	-	-	-
19 Fiveash WTP R&R	\$ 2,750,800	2,985,216	3,104,625	3,228,810	2,350,573	2,444,596	2,542,380	2,644,075	2,749,838	2,859,832	2,974,225
20 Large Water Main Replacement	\$ -	-	-	-	1,049,363	1,091,338	1,134,991	1,180,391	1,227,606	1,276,711	1,327,779
21 Phase IV - PS Rehab D31, D34, D37	\$ 438,533	456,074	474,317	493,289	513,021	533,542	554,884	-	-	-	-
22 WWTP Plant Capacity Expansion	\$ -	-	-	-	-	-	-	35,674,033	37,100,995	38,585,034	-
23 Port Condo WM	\$ -	-	646,797	-	-	-	-	-	-	-	-
24 Prospect Wellfield R&R	\$ -	252,500	262,600	273,103	284,028	295,359	307,204	319,492	332,272	345,563	359,386
25 RAC PS PProjects New RAC PS and FM	\$ 289,033	300,594	312,618	325,122	338,127	351,652	365,718	-	-	-	-
26 Gravity Sewer Rehab	\$ -	-	-	-	5,974,374	6,213,349	6,461,883	6,720,358	6,989,173	7,268,740	7,559,489
27 Fiveash WTP R&R	\$ -	2,487,680	2,587,187	2,690,675	1,958,811	2,037,164	2,118,650	2,203,396	2,291,532	2,383,193	2,478,521
28 Large Water Main Replacement	\$ -	-	-	-	3,211,051	3,339,493	3,473,073	3,611,996	3,756,476	3,906,735	4,063,004
29 New Analytical Laboratory	\$ -	-	-	-	-	-	756,661	2,360,782	-	-	-
30 New Public Works Administration Building	\$ -	-	-	-	-	-	756,661	1,573,854	-	-	-
31 Peele Dixie R & R	\$ -	124,384	-	-	-	-	-	-	-	-	-
32 Peele-Dixie WTP High Service Pump No.6	\$ -	-	98,313	204,491	212,671	-	-	-	-	-	-
33 Prospect Wellfield R&R	\$ -	18,658	19,404	20,180	20,987	21,827	22,700	23,608	24,552	25,534	26,556
34 Fiveash WTP R&R	\$ 5,980	6,219	6,468	6,727	6,996	7,276	7,567	7,869	8,184	8,511	8,852
35 Large Water Main Replacement	\$ -	-	-	-	1,189,278	1,236,849	1,286,323	1,337,776	1,391,287	1,446,939	1,504,816
36 Prospect Wellfield R&R	\$ -	-	-	-	-	-	-	-	-	-	-
37 Peele Dixie Alternative Water Supply Program	\$ 2,322,324	6,591,100	20,403,117	5,611,508	-	-	-	-	-	-	-
38 WaterWorks 2011 Projects											
39 Non-Regional Pay-as-you-go	\$ 570,589	820,201	56,243	17,521	1,612	-	-	-	-	-	-
40 Non-Regional Bond Fund	\$ 115,370,111	44,019,573	6,993,585	1,810,407	-	-	-	-	-	-	-
41 Future Bonds	\$ 8,785,492	60,352,760	46,712,987	14,106,857	2,688,149	-	-	-	-	-	-
42 Total CIP Projects:	\$ 137,841,018	126,704,529	91,727,540	39,239,942	26,515,665	31,571,425	35,588,527	77,497,653	76,112,703	79,157,212	42,195,064
43 % of Budgeted CIP Projected to be Executed*	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
44 Projected \$ to be Spent	\$ 130,420,891	114,466,007	78,166,727	32,265,246	21,271,510	25,257,140	28,470,822	61,998,122	60,890,163	63,325,769	33,756,051

* The WaterWorks Program projects are not subject to cost escalation factors or the spending percentages identified on this schedule.

Schedule A9 – Growth Projections and Operations Cash In-Flows

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
<u>Cash Inflows</u>											
Projections of Revenues & Other Sources of Funds											
<u>Water Rate Revenue Projection Assumptions</u>	FY 2008	FY 2009*	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Growth in Retail Water Accounts	0.00%	0.00%	0.21%	0.43%	0.42%	0.63%	0.63%	0.63%	0.62%	0.62%	0.61%
Growth in Retail Water Use	0.00%	0.00%	0.21%	0.43%	0.42%	0.63%	0.63%	0.63%	0.62%	0.62%	0.61%
Annual Water Rate Increase Assumed	N/A	20.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Growth in Retail Sewer Accounts	0.00%	5.74%	3.22%	1.12%	0.59%	0.88%	0.88%	0.87%	0.86%	0.85%	0.85%
Growth in Retail Sewer Use	0.00%	5.74%	3.22%	1.12%	0.59%	0.88%	0.88%	0.87%	0.86%	0.85%	0.85%
Annual Sewer Rate Increase Assumed	N/A	20.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
<u>Rate Revenue Subject to Growth & Rate Increases</u>											
Water Revenue Generated From Admin/Customer Charges	\$ 6,830,805	\$ 8,242,215	\$ 10,928,719	\$ 11,473,893	\$ 12,051,348	\$ 12,689,274	\$ 13,365,186	\$ 14,081,043	\$ 14,838,924	\$ 15,641,032	\$ 16,489,697
Water Revenue Generated From Consumption Charges	\$ 38,707,892	\$ 39,770,688	\$ 45,115,992	\$ 47,366,582	\$ 49,750,435	\$ 52,383,928	\$ 55,174,228	\$ 58,129,432	\$ 61,258,122	\$ 64,569,387	\$ 68,072,850
Sewer Revenue Generated From Admin/Customer Charges	\$ 3,956,376	\$ 5,259,752	\$ 8,456,664	\$ 8,938,533	\$ 9,402,818	\$ 9,923,888	\$ 10,476,879	\$ 11,063,505	\$ 11,685,579	\$ 12,345,026	\$ 13,043,884
Sewer Revenue Generated From Consumption Charges	\$ 29,013,428	\$ 31,181,948	\$ 35,360,248	\$ 37,375,110	\$ 39,316,444	\$ 41,495,221	\$ 43,807,470	\$ 46,260,353	\$ 48,861,462	\$ 51,618,840	\$ 54,541,006
Total Revenue Subject to Growth & Rate Increases	\$ 78,508,501	\$ 84,454,603	\$ 99,861,622	\$ 105,154,117	\$ 110,521,045	\$ 116,492,311	\$ 122,823,763	\$ 129,534,332	\$ 136,644,086	\$ 144,174,285	\$ 152,147,436
<u>Other Operating Revenues</u>											
Water Drought Surcharge	\$ 400,000	\$ 200,000	\$ 200,000	\$ 210,000	\$ 220,500	\$ 231,525	\$ 243,101	\$ 255,256	\$ 268,019	\$ 281,420	\$ 295,491
Sewer Drought Surcharge	\$ 400,000	\$ 200,000	\$ 200,000	\$ 210,000	\$ 220,500	\$ 231,525	\$ 243,101	\$ 255,256	\$ 268,019	\$ 281,420	\$ 295,491
2011 10% Sewer Surcharge	\$ 140,000	\$ 491,974	\$ 682,477	\$ 781,269	\$ 820,332	\$ 861,349	\$ 904,416	\$ 949,637	\$ 997,119	\$ 1,046,975	\$ 1,099,324
Miscellaneous Income	\$ 75,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Service Charge	\$ 500,000	\$ 300,000	\$ 300,640	\$ 301,921	\$ 303,202	\$ 305,123	\$ 307,044	\$ 308,965	\$ 310,886	\$ 312,807	\$ 314,728
Other Income (Penalty Charges)	\$ 120,000	\$ 150,000	\$ 150,320	\$ 150,961	\$ 151,601	\$ 152,561	\$ 153,522	\$ 154,482	\$ 155,443	\$ 156,404	\$ 157,364
Dishonored Check Fees	\$ 30,000	\$ 30,000	\$ 30,064	\$ 30,192	\$ 30,320	\$ 30,512	\$ 30,704	\$ 30,896	\$ 31,089	\$ 31,281	\$ 31,473
Write Off Recoveries	\$ 45,000	\$ 45,000	\$ 45,096	\$ 45,288	\$ 45,480	\$ 45,768	\$ 46,057	\$ 46,345	\$ 46,633	\$ 46,921	\$ 47,209
Laboratory Services	\$ 35,000	\$ 25,000	\$ 26,161	\$ 27,253	\$ 28,361	\$ 29,535	\$ 30,759	\$ 32,036	\$ 33,368	\$ 34,758	\$ 36,208
Revenue from Paid Water L	\$ 10,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000
Coral Ridge Country Club	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995	\$ 5,995
Water Service Installation	\$ 1,000,000	\$ 1,120,000	\$ 1,122,391	\$ 1,127,172	\$ 1,131,953	\$ 1,139,125	\$ 1,146,297	\$ 1,153,469	\$ 1,160,641	\$ 1,167,813	\$ 1,174,985
Total Other Operating Revenue:	\$ 2,760,995	\$ 2,612,969	\$ 2,808,144	\$ 2,935,051	\$ 3,003,245	\$ 3,078,019	\$ 3,155,997	\$ 3,237,339	\$ 3,322,212	\$ 3,410,794	\$ 3,503,269
<u>Non-Operating Revenue/Other Sources of Funds</u>											
Engineering-Interfund Services	\$ 2,000,000	\$ 2,000,000	\$ 2,092,851	\$ 2,180,270	\$ 2,268,876	\$ 2,362,783	\$ 2,460,730	\$ 2,562,896	\$ 2,669,474	\$ 2,780,663	\$ 2,896,673
Public Works Other - Interfund Services	\$ 17,348	\$ 5,000	\$ 5,232	\$ 5,451	\$ 5,672	\$ 5,907	\$ 6,152	\$ 6,407	\$ 6,674	\$ 6,952	\$ 7,242
Charges to Other Funds	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690	\$ 418,690
Pipe Crew Interfund Services	\$ 1,500,000	\$ 1,500,000	\$ 1,569,638	\$ 1,635,202	\$ 1,701,657	\$ 1,772,088	\$ 1,845,547	\$ 1,922,172	\$ 2,002,106	\$ 2,085,498	\$ 2,172,504
Pipe Yard Inventory Sales	\$ 1,500,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000	\$ 1,200,000
Fuel Sales - Internal Services	\$ 1,250,000	\$ 1,248,500	\$ 1,306,462	\$ 1,361,033	\$ 1,416,346	\$ 1,474,968	\$ 1,536,110	\$ 1,599,888	\$ 1,666,419	\$ 1,735,829	\$ 1,808,248
Repairs-Outside Contractors	\$ 70,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
New Laterals & Miscellaneous Repairs	\$ 140,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Repairs-Outside Contractors	\$ 47,267	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Interest Earned on Unrestricted Funds	\$ 294,786	\$ 198,301	\$ 283,333	\$ 429,853	\$ 377,663	\$ 289,001	\$ 298,487	\$ 308,381	\$ 318,702	\$ 329,469	\$ 340,702
Interest Earned on Restricted Funds	\$ 239,223	\$ 291,007	\$ 412,448	\$ 517,392	\$ 529,761	\$ 542,257	\$ 563,484	\$ 605,458	\$ 670,336	\$ 738,835	\$ 784,591
Water Impact Fees	\$ -	\$ -	\$ -	\$ 377,750	\$ 755,500	\$ 755,500	\$ 1,133,250	\$ 1,133,250	\$ 1,133,250	\$ 1,133,250	\$ 1,133,250
Sewer Impact Fees	\$ -	\$ -	\$ 467,250	\$ 934,500	\$ 934,500	\$ 1,401,750	\$ 1,401,750	\$ 1,401,750	\$ 1,401,750	\$ 1,401,750	\$ 1,401,750
Sewer Impact Fees - 2011 Connection Fee	\$ 2,500,000	\$ 4,390,000	\$ 2,350,000	\$ 435,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Credit Card Discount & Fee	\$ (110,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)	\$ (150,000)
Collection Agencies Fees	\$ (1,000)	\$ (1,000)	\$ (1,002)	\$ (1,006)	\$ (1,011)	\$ (1,017)	\$ (1,023)	\$ (1,030)	\$ (1,036)	\$ (1,043)	\$ (1,049)
* CONTRA Large User Fees**	\$ (12,989,830)	\$ (13,400,000)	\$ (14,232,881)	\$ (14,819,323)	\$ (15,351,702)	\$ (15,947,881)	\$ (16,565,978)	\$ (17,206,771)	\$ (17,871,066)	\$ (18,559,694)	\$ (19,273,518)
Total Non-Operating Revenue/Other Sources of Funds	\$ (3,123,516)	\$ (2,194,501)	\$ (4,172,978)	\$ (5,370,188)	\$ (5,789,048)	\$ (5,770,955)	\$ (5,747,802)	\$ (6,093,909)	\$ (6,429,701)	\$ (6,774,802)	\$ (7,155,918)
Total Revenue	\$ 78,145,980	\$ 84,873,071	\$ 98,496,789	\$ 102,718,980	\$ 107,735,241	\$ 113,799,375	\$ 120,231,958	\$ 126,677,762	\$ 133,536,597	\$ 140,810,277	\$ 148,494,787

* FY 2009 reflects a 5% rate increase effective at 10/1/08 and a rate structure change that provides a water and sewer rate revenue increase of 20% effective 8/1/09 in addition to reallocating a greater portion of revenue recovery to the water and sewer fixed monthly charges.

** The "CONTRA Large User Fees" line item is for payments made to the regional wastewater treatment facility. The City budgets this item as a negative revenue. Our model treats this line item as an expense.

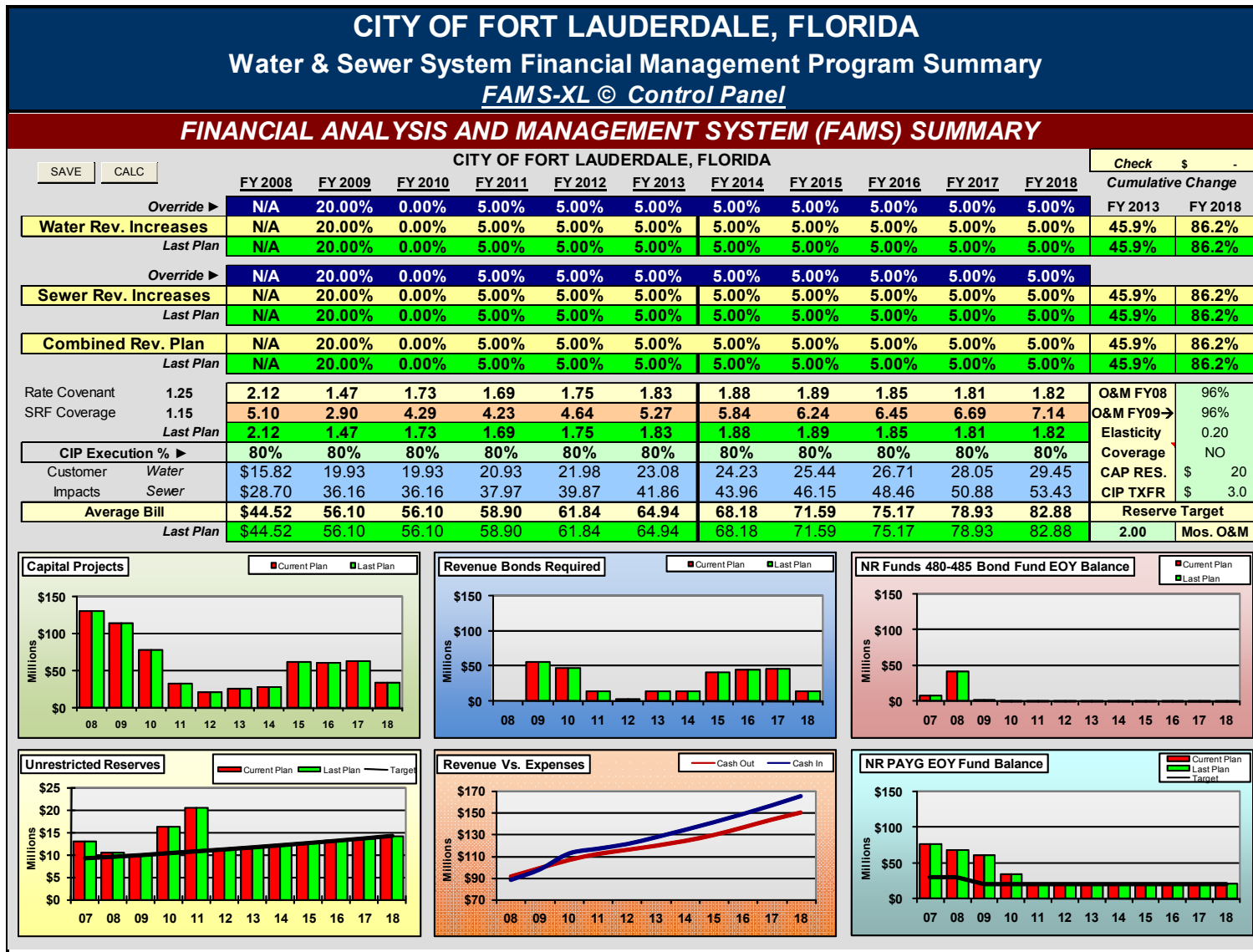
Schedule A10 – Operations Cash Out –Flows (Page 1 of 2)

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
<i>Cash Outflows</i>											
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Personnel Services, O&M, and Capital Outlay Expenses:											
ADMINISTRATION DIVISION 01											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 1,596,916	1,727,815	1,796,927	1,868,804	1,943,557	2,021,299	2,102,151	2,186,237	2,273,686	2,364,634	2,459,219
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 660,276	649,086	688,031	729,313	773,072	819,456	868,623	920,741	975,985	1,034,544	1,096,617
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 1,206,539	1,009,168	1,059,627	1,112,608	1,168,238	1,226,650	1,287,983	1,352,382	1,420,001	1,491,001	1,565,551
CHARACTER 40 - Other Operating Expenses	\$ 287,316	238,223	245,370	252,731	260,313	268,122	276,166	284,451	292,984	301,774	310,827
CHARACTER 50 - Write Offs	\$ -	-	-	-	-	-	-	-	-	-	-
CHARACTER 60 - Capital Outlay	\$ 338,321	177,819	184,932	192,329	200,022	208,023	216,344	224,998	233,998	243,358	253,092
DIVISION 01 SUB-TOTAL	\$ 4,089,366	3,802,111	3,974,886	4,155,785	4,345,202	4,543,550	4,751,267	4,968,808	5,196,654	5,435,310	5,685,306
CUSTOMER SERVICE DIVISION 05											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 2,222,434	2,441,641	2,539,307	2,640,879	2,746,514	2,856,375	2,970,630	3,089,455	3,213,033	3,341,554	3,475,216
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 953,129	983,069	1,042,053	1,104,576	1,170,851	1,241,102	1,315,568	1,394,502	1,478,172	1,566,862	1,660,874
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 741,879	742,977	780,125	819,132	860,088	903,093	948,247	995,660	1,045,443	1,097,715	1,152,601
CHARACTER 40 - Other Operating Expenses	\$ 193,603	198,036	203,977	210,096	216,399	222,891	229,577	236,465	243,559	250,865	258,391
CHARACTER 60 - Capital Outlay	\$ 1,500	-	-	-	-	-	-	-	-	-	-
DIVISION 05 SUB-TOTAL	\$ 4,112,545	4,365,722	4,565,462	4,774,683	4,993,852	5,223,460	5,464,022	5,716,081	5,980,206	6,256,997	6,547,083
UTILITIES ENGINEERING OPERATIONS DIVISION 06											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 1,474,971	1,614,276	1,678,847	1,746,000	1,815,840	1,888,474	1,964,013	2,042,574	2,124,276	2,209,248	2,297,617
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 546,172	555,764	589,110	624,457	661,924	701,639	743,738	788,362	835,664	885,804	938,952
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 264,140	270,077	283,581	297,760	312,648	328,280	344,694	361,929	380,025	399,026	418,978
CHARACTER 40 - Other Operating Expenses	\$ 211,416	254,616	262,254	270,122	278,226	286,573	295,170	304,025	313,146	322,540	332,216
CHARACTER 60 - Capital Outlay	\$ 9,960	-	-	-	-	-	-	-	-	-	-
DIVISION 06 SUB-TOTAL	\$ 2,506,659	2,694,732	2,813,792	2,938,339	3,068,638	3,204,966	3,347,615	3,496,889	3,653,111	3,816,618	3,987,763
DISTRIBUTION & COLLECTION DIVISION 66											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 7,142,508	7,588,674	7,892,221	8,207,910	8,536,226	8,877,676	9,232,783	9,602,094	9,986,178	10,385,625	10,801,050
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 3,015,684	2,987,846	3,167,117	3,357,144	3,558,573	3,772,087	3,998,412	4,238,317	4,492,616	4,762,173	5,047,904
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 3,572,570	4,344,476	4,561,700	4,789,785	5,029,274	5,280,738	5,544,775	5,822,014	6,113,114	6,418,770	6,739,708
CHARACTER 40 - Other Operating Expenses	\$ 1,547,686	1,663,016	1,712,906	1,764,293	1,817,222	1,871,739	1,927,891	1,985,728	2,045,300	2,106,659	2,169,858
CHARACTER 60 - Capital Outlay	\$ 416,945	290,000	301,600	313,664	326,211	339,259	352,829	366,943	381,620	396,885	412,760
DIVISION 66 SUB-TOTAL	\$ 15,695,394	16,874,012	17,635,545	18,432,797	19,267,506	20,141,498	21,056,690	22,015,095	23,018,828	24,070,111	25,171,280
TREATMENT DIVISION 67											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 2,727,126	2,949,094	3,067,058	3,189,740	3,317,330	3,450,023	3,588,024	3,731,545	3,880,807	4,036,039	4,197,480
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 1,146,850	1,170,212	1,240,425	1,314,850	1,393,741	1,477,366	1,566,008	1,659,968	1,759,566	1,865,140	1,977,049
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 7,145,700	7,217,493	7,578,368	7,957,286	8,355,150	8,772,908	9,211,553	9,672,131	10,155,738	10,663,525	11,196,701
CHARACTER 40 - Other Operating Expenses	\$ 143,380	148,535	152,991	157,581	162,308	167,177	172,193	177,359	182,679	188,160	193,805
CHARACTER 60 - Capital Outlay	\$ 2,210	-	-	-	-	-	-	-	-	-	-
DIVISION 67 SUB-TOTAL	\$ 11,165,265	11,485,334	12,038,842	12,619,458	13,228,530	13,867,474	14,537,778	15,241,003	15,978,790	16,752,864	17,565,035
ENVIRONMENTAL RESOURCES DIVISION 69											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ 402,286	472,209	491,097	510,741	531,170	552,417	574,514	597,495	621,394	646,250	672,100
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 166,244	167,896	177,970	188,648	199,967	211,965	224,683	238,164	252,454	267,601	283,657
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 58,404	102,220	107,331	112,697	118,332	124,249	130,461	136,984	143,834	151,025	158,577
CHARACTER 40 - Other Operating Expenses	\$ 39,800	39,800	40,994	42,223	43,490	44,795	46,139	47,523	48,949	50,417	51,930
CHARACTER 60 - Capital Outlay	\$ -	-	-	-	-	-	-	-	-	-	-
DIVISION 69 SUB-TOTAL	\$ 666,733	782,124	817,392	854,310	892,960	933,426	975,797	1,020,166	1,066,631	1,115,294	1,166,264
DEPARTMENT SUPPORT DIVISION 70											
CHARACTER 10 - Personnel Services/Salaries & Wages	\$ -	-	-	-	-	-	-	-	-	-	-
CHARACTER 20 - Personnel Services/Fringe Benefits	\$ 586,599	586,599	621,795	659,103	698,649	740,568	785,002	832,102	882,029	934,950	991,047
CHARACTER 30 - Operating Services, Materials, Supplies	\$ 1,530,489	1,409,280	1,479,744	1,553,731	1,631,418	1,712,989	1,798,638	1,888,570	1,982,998	2,082,148	2,186,256
CHARACTER 40 - Other Operating Expenses*	\$ 4,271,877	4,226,137	4,213,721	4,193,973	4,166,324	4,130,172	4,084,879	4,029,767	3,964,119	3,887,174	3,798,127
CHARACTER 50 - Non-Operating Expenses	\$ 287,832	172,800	177,984	183,324	188,823	194,488	200,323	206,332	212,522	218,898	225,465
CHARACTER 60 - Capital Outlay	\$ -	-	-	-	-	-	-	-	-	-	-
DIVISION 70 SUB-TOTAL	\$ 6,676,797	6,394,816	6,493,244	6,590,130	6,685,214	6,778,217	6,868,842	6,956,771	7,041,668	7,123,170	7,200,895
Total Personnel Services, O&M, and Cap. Outlay Expenses	\$ 44,912,760	46,398,853	48,339,162	50,365,501	52,481,902	54,692,592	57,002,011	59,414,813	61,935,888	64,570,364	67,323,625

Schedule A10 – Operations Cash Out –Flows (Page 2 of 2)

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
<i>Cash Outflows</i>											
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Bond/Debt Service Expenses											
<u>Existing Revenue Bond Debt Service Costs</u>											
Series 2003	\$ 5,272,978	\$ 5,264,517	\$ 5,258,951	\$ 5,260,639	\$ 5,264,046	\$ 5,256,081	\$ 5,252,835	\$ 5,255,413	\$ 5,254,172	\$ 5,258,181	\$ 5,266,642
Series 2006	\$ 6,111,071	\$ 6,117,969	\$ 6,122,504	\$ 6,124,785	\$ 6,119,547	\$ 6,126,168	\$ 6,135,114	\$ 6,150,936	\$ 6,167,877	\$ 6,160,818	\$ 6,153,301
Series 2008	\$ 3,453,555	\$ 10,104,456	\$ 10,099,856	\$ 10,099,981	\$ 10,102,181	\$ 10,102,119	\$ 10,100,669	\$ 10,100,456	\$ 10,101,356	\$ 10,101,156	\$ 10,099,856
Total Existing Revenue Bond Debt Service:	\$ 14,837,604	21,486,942	21,481,311	21,485,405	21,485,774	21,484,368	21,488,618	21,506,805	21,523,405	21,520,155	21,519,799
<u>Existing SRF Loan Program Debt Service Costs</u>											
WWG12047439P	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407	\$ 472,407
WW47439L 01	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021	\$ 1,119,021
WW47440S	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268	\$ 1,208,268
WW 474410	\$ 954,863	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726	\$ 1,909,726
WW 474420	\$ -	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552	\$ 637,552
Total Existing SRF Debt Service:	\$ 3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
<u>Cumulative Additional Debt Service From New Borrowings Projected By FAMS-XL© Model</u>	\$ -	\$ 1,942,258	\$ 6,224,114	\$ 8,760,243	\$ 9,458,184	\$ 10,002,321	\$ 11,062,734	\$ 12,968,495	\$ 16,191,316	\$ 19,603,518	\$ 22,116,539
Total Bond/Debt Service Costs:	\$ 18,592,163	28,776,174	33,052,399	35,592,622	36,290,932	36,833,663	37,898,325	39,822,274	43,061,695	46,470,646	48,983,312
Transfers:											
TO to CIP	\$ 7,927,520	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000	\$ 3,000,000
PILOT	\$ 6,700,000	\$ 7,250,000	\$ 7,612,500	\$ 7,993,125	\$ 8,392,781	\$ 8,812,420	\$ 9,253,041	\$ 9,715,693	\$ 10,201,478	\$ 10,711,552	\$ 11,247,130
Total Transfers:	\$ 14,627,520	10,250,000	10,612,500	10,993,125	11,392,781	11,812,420	12,253,041	12,715,693	13,201,478	13,711,552	14,247,130
Total O&M, Debt Service, Transfers, & Capital Outlay:	\$ 78,132,443	85,425,027	92,004,061	96,951,248	100,165,615	103,338,676	107,153,377	111,952,780	118,199,061	124,752,562	130,554,067
<small>* Character 40 of Division 70 reflects a re-classification of PILOT as a Below-the-Line-Expense per the City's Bond Documents and is not included in the Rate Covenant test. The PILOT line item is shown in the Transfers section of this schedule. Note: Character 10, 20, 30, 40, and 50 Expenses reflect a 96% expenditure rate in FY 2008 and a 96% expenditure rate in FY 2009 - FY 2018.</small>											

Schedule A11 – FAMS-XL© Control Panel



UTILITY RATE STUDY APPENDIX A

Schedule A12 – Proforma

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
Forecast of Net Revenues and Debt Service Coverage											
	FY 2008	FY 2009*	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
1 Revenue											
2 Water Retail Rate Revenue	\$ 45,538,697	45,538,697	48,012,903	56,044,711	58,840,474	61,801,783	65,073,202	68,539,414	72,210,474	76,097,045	80,210,419
3 Retail Rate Revenue from Growth	\$ 0	0	119,374	238,747	249,594	391,572	409,703	428,827	448,986	470,228	492,602
4 Additional Revenue from Partial Prior Year Rate Increase	\$ 0	0	7,912,434	0	0	0	0	0	0	0	0
5 Proposed Rate Increase		N/A	25.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
6 Retail Rate Revenue from Rate Increase	\$ 0	3,549,627	0	2,814,173	2,954,503	3,109,668	3,274,145	3,448,412	3,632,973	3,828,364	4,035,151
7 Price Elasticity Adjustment	Coefficient: 0.20	\$ 0	(1,075,421)	0	(257,156)	(242,788)	(229,820)	(217,637)	(206,178)	(195,388)	(185,218)
8 Total Water Retail Rate Revenue	\$ 45,538,697	48,012,903	56,044,711	58,840,474	61,801,783	65,073,202	68,539,414	72,210,474	76,097,045	80,210,419	84,562,547
9 Sewer Retail Rate Revenue	\$ 32,969,804	32,969,804	36,441,700	43,816,912	46,313,643	48,719,262	51,419,109	54,284,350	57,323,858	60,547,041	63,963,866
10 Retail Rate Revenue from Growth	\$ 0	1,892,794	1,365,052	490,894	274,394	430,420	450,294	471,259	493,363	516,656	541,195
11 Additional Revenue from Partial Prior Year Rate Increase	\$ 0	0	6,010,160	0	0	0	0	0	0	0	0
12 Proposed Rate Increase		N/A	25.00%	0.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
13 Retail Rate Revenue from Rate Increase	\$ 0	2,424,116	0	2,215,390	2,329,402	2,457,484	2,593,470	2,737,790	2,890,861	3,053,185	3,225,253
14 Price Elasticity Adjustment	Coefficient: 0.20	\$ 0	(845,014)	0	(209,553)	(198,176)	(188,057)	(178,523)	(169,531)	(161,040)	(153,016)
15 Total Sewer Retail Rate Revenue	\$ 32,969,804	36,441,700	43,816,912	46,313,643	48,719,262	51,419,109	54,284,350	57,323,858	60,547,041	63,963,866	67,584,889
16 All Other Operating Revenue **	\$ 6,586,033	6,385,659	6,743,554	7,023,657	7,247,129	7,486,470	7,736,092	7,996,475	8,268,120	8,551,554	8,847,328
17 Total Operating Revenue	\$ 85,094,534	90,840,262	106,605,176	112,177,774	117,768,173	123,978,781	130,559,855	137,530,807	144,912,206	152,725,839	160,994,764
18 Expenses											
19 Personal Services	\$ (22,641,195)	(23,894,181)	(24,991,958)	(26,142,166)	(27,347,415)	(28,610,447)	(29,934,148)	(31,321,555)	(32,775,860)	(34,300,424)	(35,898,783)
20 O&M Expenses	\$ (21,502,629)	(22,036,853)	(22,860,672)	(23,717,342)	(24,608,254)	(25,534,863)	(26,498,689)	(27,501,318)	(28,544,410)	(29,629,697)	(30,758,990)
21 Contra Large User Fees	\$ (12,989,830)	(13,400,000)	(14,232,881)	(14,819,323)	(15,351,702)	(15,947,881)	(16,565,978)	(17,206,771)	(17,871,066)	(18,559,694)	(19,273,518)
22 Net Operating Income	\$ 27,960,880	31,509,228	44,519,665	47,498,944	50,460,802	53,885,590	57,561,040	61,501,162	65,720,870	70,236,023	75,063,474
23 Plus: Non-Operating Income (Expense)											
24 Non Operating Revenue	\$ 3,007,267	2,553,500	2,611,462	2,666,033	2,721,346	2,779,968	2,841,110	2,904,888	2,971,419	3,040,829	3,113,248
25 Interest Earned on Fund Balances	\$ 534,009	489,309	695,782	947,245	907,425	831,258	861,971	913,838	989,038	1,068,303	1,125,292
26 Impact Fees	\$ 2,500,000	4,390,000	2,817,250	1,747,250	1,690,000	2,157,250	2,535,000	2,535,000	2,535,000	2,535,000	2,535,000
27 Total Non-Operating Income	\$ 6,041,276	7,432,809	6,124,494	5,360,528	5,318,770	5,768,475	6,238,081	6,353,727	6,495,457	6,644,132	6,773,540
28 Less: Income Not Included in Net Income Coverage Test											
29 Water And Sewer Impact Fees	\$ (2,500,000)	(4,390,000)	(2,817,250)	(1,747,250)	(1,690,000)	(2,157,250)	(2,535,000)	(2,535,000)	(2,535,000)	(2,535,000)	(2,535,000)
30 Net Income Available for Debt Service	\$ 31,502,156	34,552,037	47,826,909	51,112,222	54,089,573	57,496,815	61,264,121	65,319,889	69,681,327	74,345,156	79,302,014
31 Senior Lien Debt Service Coverage											
32 Existing Senior Lien Debt	\$ 14,837,604	21,486,942	21,481,311	21,485,405	21,485,774	21,484,368	21,488,618	21,506,805	21,523,405	21,520,155	21,519,799
33 Cumulative New Senior Lien Debt for Additional Borrowings	\$ 0	1,942,258	6,224,114	8,760,243	9,458,184	10,002,321	11,062,734	12,968,495	16,191,316	19,603,518	22,116,539
34 Total Senior Lien Debt Service	\$ 14,837,604	23,429,200	27,705,425	30,245,648	30,943,958	31,486,689	32,551,352	34,475,300	37,714,721	41,123,673	43,636,338
35 Senior Lien Debt Service Coverage Test 1	1.25 Req'd	2.12	1.47	1.73	1.69	1.83	1.88	1.89	1.85	1.81	1.82
36 Senior Lien Debt Service Coverage Test 2	1.30 Req'd	2.29	1.66	1.83	1.75	1.80	1.89	1.96	1.97	1.91	1.88
37 SRF Debt Service Coverage											
38 Net Income Available for SRF Debt Service Coverage	\$ 16,664,552	11,122,837	20,121,484	20,866,574	23,145,615	26,010,126	28,712,770	30,844,589	31,966,606	33,221,483	35,665,676
39 Total SRF Debt Service	\$ 3,754,559	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974	5,346,974
40 SRF Debt Service Coverage	1.15 Req'd	5.10	2.90	4.29	4.23	4.64	5.27	5.84	6.24	6.45	6.69
41 Net Income Available for Debt Service	\$ 31,502,156	34,552,037	47,826,909	51,112,222	54,089,573	57,496,815	61,264,121	65,319,889	69,681,327	74,345,156	79,302,014
42 Less:											
43 Net Debt Service Payment (Debt Service - Impact Fee Payment)	\$ (18,592,163)	(24,386,174)	(30,235,149)	(34,223,122)	(36,290,932)	(36,833,663)	(37,898,325)	(39,822,274)	(43,061,695)	(46,470,646)	(48,983,312)
44 PILOT	\$ (6,700,000)	(7,250,000)	(7,612,500)	(7,993,125)	(8,392,781)	(8,812,420)	(9,253,041)	(9,715,693)	(10,201,478)	(10,711,552)	(11,247,130)
45 Water & Sewer P.A.-Y-G Capital Fund Contributions	\$ (7,927,520)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)
46 Capital Outlay	\$ (768,936)	(467,819)	(486,532)	(505,993)	(526,233)	(547,282)	(569,173)	(591,940)	(615,618)	(640,243)	(665,852)
47 Net Cash Flow	\$ (2,486,463)	(551,956)	6,492,728	5,389,982	5,879,627	8,303,450	10,543,581	12,189,982	12,802,537	13,522,715	15,405,720
48 Unrestricted Reserve Fund - Beginning of Year Balance	\$ 12,982,537	10,496,074	9,944,118	16,436,847	20,548,434	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	13,748,303
49 Cash Flow Surplus	\$ 0	0	6,492,728	5,389,982	5,879,627	8,303,450	10,543,581	12,189,982	12,802,537	13,522,715	15,405,720
50 Reserve Fund Balance Used For Cash Flow Deficit	\$ (2,486,463)	(551,956)	0	0	0	0	0	0	0	0	0
51 Projects Paid With Reserve Funds (Non Specified Funds)	\$ 0	0	0	(1,278,395)	(15,210,166)	(7,839,146)	(10,059,310)	(11,684,843)	(12,275,588)	(12,972,968)	(14,832,141)
52 Unrestricted Reserve Fund - End of Year Balance	\$ 10,496,074	9,944,118	16,436,847	20,548,434	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	13,748,303	14,321,882
53 Minimum Working Capital Reserve Target	\$ 9,522,276	9,888,506	10,347,585	10,779,805	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	13,748,303	14,321,882
54 Excess (Deficiency) of Working Capital Reserves to Target	\$ 973,798	55,613	6,089,261	9,768,629	0	0	0	0	0	0	0

* FY 2009 reflects a 5% water and sewer rate increase effective 10/1/08, plus another 20% rate revenue increase effective 8/1/09.
** Other Operating Revenue includes Installation Fees, Penalties/Late Charges, and Other Miscellaneous Revenue.

Schedule A13 – CIP Funding Sources

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
<u>Capital Projects Funding Sources</u>											
FINAL CAPITAL PROJECTS FUNDING SOURCES	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Water Impact Fees	\$ -	-	-	377,750	-	238,639	799,034	1,145,766	-	-	-
Sewer Impact Fees	\$ 2,500,000	-	-	-	1,325	-	302,664	4,936,493	1,437,097	1,402,103	1,401,754
Fund 454 - N.R. P-A-Y-G	\$ 16,988,092	17,967,918	30,421,780	16,987,981	3,539,880	3,405,399	3,404,054	3,404,041	3,404,040	3,404,040	3,404,040
Renewal & Replacement	\$ -	-	-	-	-	-	-	-	-	-	-
Fund 480-485 N.R. Bond Funds	\$ 110,932,799	40,698,570	1,342,035	11,743	-	-	-	-	-	-	-
Revenue Fund	\$ -	-	-	1,278,395	15,210,166	7,839,146	10,059,310	11,684,843	12,275,588	12,972,968	14,832,141
Debt Proceeds	\$ -	55,799,520	46,402,912	13,609,378	2,520,140	13,773,956	13,905,759	40,826,979	43,773,437	45,546,657	14,118,117
TOTAL PROJECTS PAID	\$ 130,420,891	114,466,007	78,166,727	32,265,246	21,271,510	25,257,140	28,470,822	61,998,122	60,890,163	63,325,769	33,756,051
TOTAL CIP INPUT	\$ 130,420,891	114,466,007	78,166,727	32,265,246	21,271,510	25,257,140	28,470,822	61,998,122	60,890,163	63,325,769	33,756,051
VARIANCE	\$ -	-	-	-	-	-	-	-	-	-	-

Schedule A14 – Projected Borrowing

CITY OF FORT LAUDERDALE, FLORIDA											
Water & Sewer System Financial Management Program Summary											
<i>Future Long-Term Borrowing Projections</i>											
Annual Long-Term Debt Service Expense Calculation	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Term	30	30	30	30	30	30	30	30	30	30	30
Interest	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%	5.75%
Sources of Funds											
Par Amount	\$0	\$67,556,804	\$50,321,769	\$14,758,729	\$2,732,973	\$14,937,205	\$15,080,140	\$44,274,933	\$47,470,227	\$49,393,201	\$15,310,432
Interest During Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Sources	\$0	\$67,556,804	\$50,321,769	\$14,758,729	\$2,732,973	\$14,937,205	\$15,080,140	\$44,274,933	\$47,470,227	\$49,393,201	\$15,310,432
Uses of Funds											
Proceeds	\$0	\$55,799,520	\$46,402,912	\$13,609,378	\$2,520,140	\$13,773,956	\$13,905,759	\$40,826,979	\$43,773,437	\$45,546,657	\$14,118,117
Cost of Issuance	0.50% of Par	\$0	\$337,784	\$251,609	\$73,794	\$13,665	\$74,686	\$75,401	\$221,375	\$237,351	\$246,966
Underwriter's Discount	\$2.16 per \$1,000	\$0	\$145,905	\$108,682	\$31,875	\$5,903	\$32,260	\$32,569	\$95,622	\$102,523	\$106,676
Bond Insurance	0 times total Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capitalized Interest	0 Years Interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service Reserve	1 Years of Debt Service	\$0	\$4,777,363	\$3,558,566	\$1,043,682	\$193,266	\$1,056,303	\$1,066,411	\$3,130,957	\$3,356,916	\$3,492,901
Other Costs*		\$0	\$6,496,232	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Uses		\$0	\$67,556,804	\$50,321,769	\$14,758,729	\$2,732,973	\$14,937,205	\$15,080,140	\$44,274,933	\$47,470,227	\$49,393,201
1 Year Interest		\$0	\$3,884,516	\$2,893,502	\$848,627	\$157,146	\$858,889	\$867,108	\$2,545,809	\$2,729,538	\$2,840,109
Average Annual Debt Service**		\$0	\$4,777,363	\$3,558,566	\$1,043,682	\$193,266	\$1,056,303	\$1,066,411	\$3,130,957	\$3,356,916	\$3,492,901
Total Debt Service		\$0	\$143,320,892	\$106,756,987	\$31,310,454	\$5,797,967	\$31,689,089	\$31,992,323	\$93,928,702	\$100,707,477	\$104,787,042
* Other Costs in FY 2009 are refunding of \$6,496,232 of cash-funded capital in FY 2008.											
** The financial plan assumes that in the year a bond is issued, only a one-half year interest payment is made. In each subsequent year, the full debt service payment is made.											

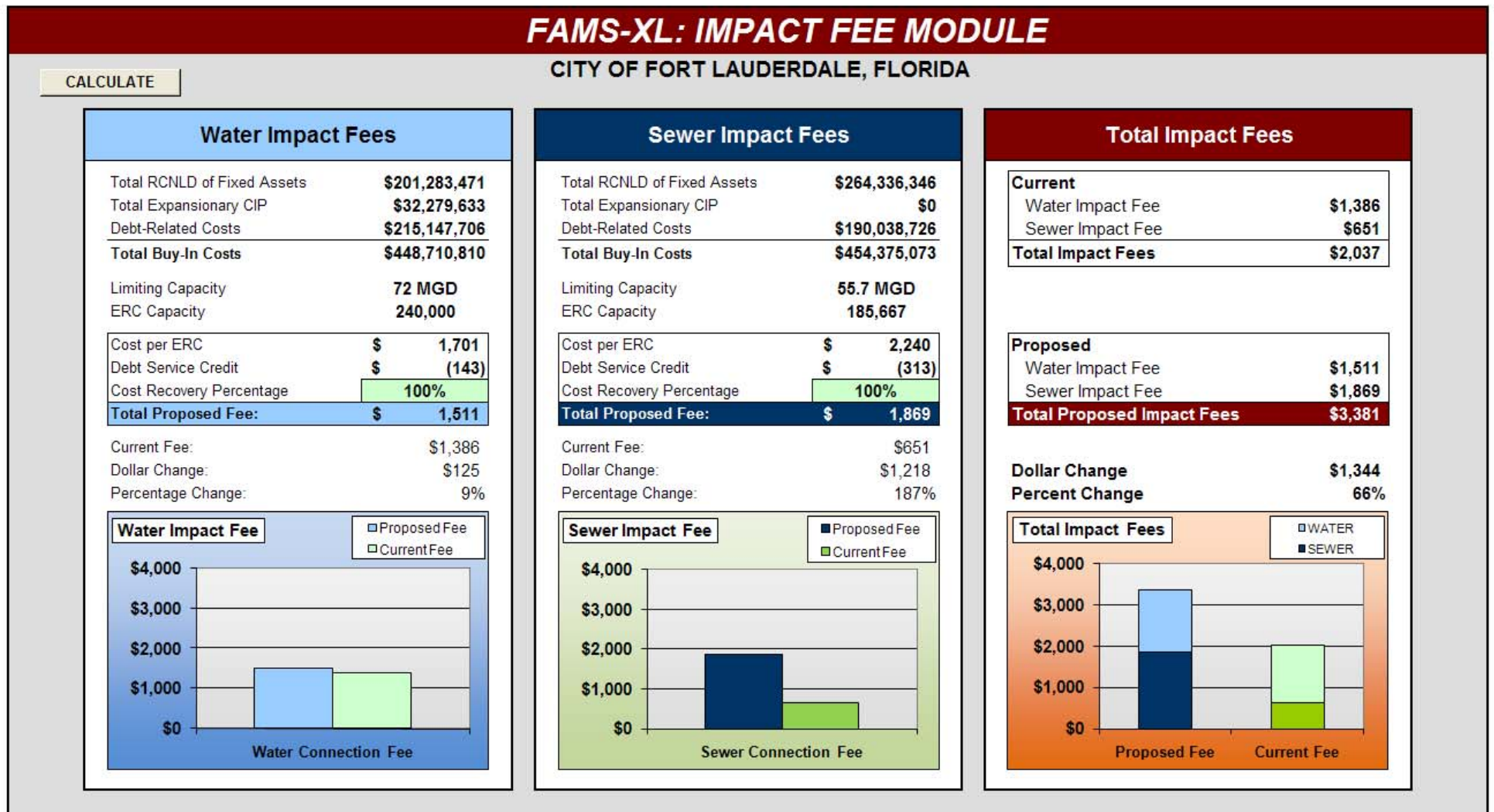
UTILITY RATE STUDY APPENDIX A

Schedule A15 – Funding Summary by Fund

CITY OF FORT LAUDERDALE, FLORIDA												
Water & Sewer System Financial Management Program Summary												
Funding Summary by Fund												
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	
1 WATER IMPACT FEES												
2	Balance At Beginning Of Fiscal Year	0	-	-	-	763,055	1,300,346	1,663,911	1,684,548	2,862,821	4,064,660	
3	Additional Annual Revenues	-	-	-	377,750	755,500	755,500	1,133,250	1,133,250	1,133,250	1,133,250	
4	Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	
5	Subtotal	-	-	-	377,750	755,500	755,500	1,133,250	1,133,250	1,133,250	1,133,250	
6	Less: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
7	Total Amount Available For Projects	-	-	-	377,750	755,500	755,500	1,133,250	1,133,250	1,133,250	1,133,250	
8	Amount Paid For Projects	-	-	-	(377,750)	-	(238,839)	(789,034)	(1,145,766)	-	-	
9	Subtotal	-	-	-	-	755,500	1,279,916	1,634,662	1,651,395	2,817,798	3,996,071	
10	Add Back: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
11	Plus: Interest Earnings	-	-	-	-	7,555	20,430	29,349	33,153	45,023	68,589	
12	Less: Interest Allocated To Cash Flow	-	-	-	-	-	-	-	-	-	-	
13	Balance At End Of Fiscal Year	-	-	-	-	763,055	1,300,346	1,663,911	1,684,548	2,862,821	4,064,660	
14	SEWER IMPACT FEES											
15	Balance At Beginning Of Fiscal Year	-	-	-	-	-	942,507	2,377,124	3,534,743	35,347	4	
16	Additional Annual Revenues	2,500,000	4,390,000	2,817,250	1,369,500	934,500	1,401,750	1,401,750	1,401,750	1,401,750	1,401,750	
17	Less: Payment Of Debt Service	-	(4,390,000)	(2,817,250)	(1,369,500)	-	-	-	-	-	-	
18	Subtotal	2,500,000	-	-	-	934,500	2,344,257	3,778,874	4,936,493	1,437,097	1,401,750	
19	Less: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
20	Total Amount Available For Projects	2,500,000	-	-	-	934,500	2,344,257	3,778,874	4,936,493	1,437,097	1,401,750	
21	Amount Paid For Projects	(2,600,000)	-	-	-	(1,325)	-	(392,861)	(4,936,493)	(1,437,097)	(1,401,750)	
22	Subtotal	-	-	-	-	933,175	2,344,257	3,476,210	-	-	-	
23	Add Back: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
24	Plus: Interest Earnings	-	-	-	-	9,332	32,868	58,533	35,347	353	4	
25	Less: Interest Allocated To Cash Flow	-	-	-	-	-	-	-	-	-	-	
26	Balance At End Of Fiscal Year	-	-	-	-	942,507	2,377,124	3,534,743	35,347	353	4	
27	FUND 454 - N.R. P-A-Y-G											
28	Balance At Beginning Of Fiscal Year	75,739,454	68,103,065	60,589,387	33,987,981	20,539,880	20,405,399	20,404,054	20,404,041	20,404,040	20,404,040	
29	Additional Annual Revenues	7,927,520	9,496,232	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	
30	Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	
31	Subtotal	83,666,974	77,599,297	63,589,387	36,987,981	23,539,880	23,405,399	23,404,054	23,404,041	23,404,040	23,404,040	
32	Less: Restricted Funds	(30,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	(20,000,000)	
33	Total Amount Available For Projects	53,666,974	57,599,297	43,589,387	16,987,981	3,539,880	3,405,399	3,404,054	3,404,041	3,404,040	3,404,040	
34	Amount Paid For Projects	(16,988,092)	(17,967,918)	(30,421,780)	(16,987,981)	(3,539,880)	(3,405,399)	(3,404,054)	(3,404,041)	(3,404,040)	(3,404,040)	
35	Subtotal	36,678,881	39,631,379	13,167,607	0	0	0	0	0	0	0	
36	Add Back: Restricted Funds	30,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	
37	Plus: Interest Earnings	1,424,183	958,008	820,374	539,880	405,399	404,054	404,041	404,040	404,040	404,040	
38	Less: Interest Allocated To Cash Flow	-	-	-	-	-	-	-	-	-	-	
39	Balance At End Of Fiscal Year	68,103,065	60,589,387	33,987,981	20,539,880	20,405,399	20,404,054	20,404,041	20,404,040	20,404,040	20,404,040	
40	RENEWAL & REPLACEMENT											
41	Balance At Beginning Of Fiscal Year	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	
42	Additional Annual Revenues	-	-	-	-	-	-	-	-	-	-	
43	Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	
44	Subtotal	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	
45	Less: Restricted Funds	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	(3,000,000)	
46	Total Amount Available For Projects	-	-	-	-	-	-	-	-	-	-	
47	Amount Paid For Projects	-	-	-	-	-	-	-	-	-	-	
48	Subtotal	-	-	-	-	-	-	-	-	-	-	
49	Add Back: Restricted Funds	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	
50	Plus: Interest Earnings	60,000	45,000	52,500	60,000	60,000	60,000	60,000	60,000	60,000	60,000	
51	Less: Interest Allocated To Cash Flow	(60,000)	(45,000)	(52,500)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)	
52	Balance At End Of Fiscal Year	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	
53	FUND 480-485 N.R. BOND FUNDS											
54	Balance At Beginning Of Fiscal Year	7,137,344	41,720,000	1,342,000	11,700	100	100	100	100	100	100	
55	Additional Annual Revenues	145,031,763	-	-	-	-	-	-	-	-	-	
56	Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	
57	Subtotal	152,169,107	41,720,000	1,342,000	11,700	100	100	100	100	100	100	
58	Less: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
59	Total Amount Available For Projects	152,169,107	41,720,000	1,342,000	11,700	100	100	100	100	100	100	
60	Amount Paid For Projects	#####	(40,898,570)	(1,342,035)	(11,743)	-	-	-	-	-	-	
61	Subtotal	41,236,307	1,021,430	(35)	(43)	100	100	100	100	100	100	
62	Add Back: Restricted Funds	-	-	-	-	-	-	-	-	-	-	
63	Plus: Interest Earnings	483,737	320,561	11,743	117	2	2	2	3	3	3	
64	Less: Interest Allocated To Cash Flow	-	-	-	-	-	-	-	-	-	-	
65	Balance At End Of Fiscal Year	41,720,000	1,342,000	11,700	100	100	100	100	100	100	100	
66	REVENUE FUND											
67	Balance At Beginning Of Fiscal Year	12,982,537	10,496,074	9,944,118	16,436,847	20,548,434	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	
68	Additional Annual Revenues	(2,486,463)	(551,956)	6,492,728	5,389,982	5,879,627	8,303,450	10,543,581	12,189,982	12,802,537	13,522,715	
69	Less: Payment Of Debt Service	-	-	-	-	-	-	-	-	-	-	
70	Subtotal	10,496,074	9,944,118	16,436,847	21,826,829	26,428,061	19,521,345	22,225,780	24,356,451	25,474,144	26,721,271	
71	Less: Restricted Funds	(9,522,278)	(9,888,506)	(10,347,585)	(10,779,805)	(11,217,895)	(11,682,198)	(12,166,469)	(12,671,607)	(13,198,556)	(13,748,303)	
72	Total Amount Available For Projects	973,796	55,613	6,089,261	11,047,024	15,210,166	7,839,146	10,059,310	11,684,843	12,275,588	14,832,141	
73	Amount Paid For Projects	-	-	-	(1,278,395)	(15,210,166)	(7,839,146)	(10,059,310)	(11,684,843)	(12,275,588)	(12,972,968)	
74	Subtotal	973,796	55,613	6,089,261	9,768,629	-	-	-	-	-	-	
75	Add Back: Restricted Funds	9,522,278	9,888,506	10,347,585	10,779,805	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	13,748,303	
76	Plus: Interest Earnings	234,786	153,301	230,833	369,853	317,663	229,001	238,487	248,381	258,702	269,469	
77	Less: Interest Allocated To Cash Flow	(234,786)	(153,301)	(230,833)	(369,853)	(317,663)	(229,001)	(238,487)	(248,381)	(258,702)	(269,469)	
78	Balance At End Of Fiscal Year	10,496,074	9,944,118	16,436,847	20,548,434	11,217,895	11,682,198	12,166,469	12,671,607	13,198,556	13,748,303	
79	RESTRICTED RESERVES (DEBT SERVICE RESERVE)											
80	Balance At Beginning Of Fiscal Year	6,910,461	17,011,817	21,789,180	25,347,746	26,391,428	26,584,693	27,640,996	28,707,407	31,838,364	35,195,280	
81	Additional Funds:	-	-	-	-	-	-	-	-	-	-	
82	Debt Service Reserve On New Debt	10,101,356	4,777,363	3,558,566	1,043,682	193,266	1,056,303	1,066,411	3,130,957	3,356,916	3,492,901	
83	Other Additional Funds	-	-	-	-	-	-	-	-	-	-	
84	Subtotal	17,011,817	21,789,180	25,347,746	26,391,428	26,584,693	27,640,996	28,707,407	31,838,364	35,195,280	38,688,181	
85	Plus: Interest Earnings	239,223	291,007	412,448	517,392	529,761	542,257	563,484	605,458	670,336	738,835	
86	Less: Interest Allocated To Cash Flow	(239,223)	(291,007)	(412,448)	(517,392)	(529,761)	(542,257)	(563,484)	(605,458)	(670,336)	(738,835)	
87	Balance At End Of Fiscal Year	17,011,817	21,789,180	25,347,746	26,391,428	26,584,693	27,640,996	28,707,407	31,838,364	35,195,280	38,688,181	

Appendix B
Supporting Schedules for the Impact Fee
Analysis

Schedule B1 – Summary of Impact Fee Results



UTILITY RATE STUDY APPENDIX B

Schedule B2 – Water Impact Fee Calculation

Fort Lauderdale, FL					
Impact Fee Study - Implementation in FY 2009					
<i>Water Impact Fee Calculation</i>					
1 <u>Functional Component:</u>		Transmission	Treatment	Water Supply	Total
2 <u>Water Project Costs:</u>		\$126,285,120	\$80,954,634	\$26,323,350	\$233,563,104
3 Less: Grant Funding	5.00%	(\$6,314,256)	(\$4,047,732)	(\$1,316,167)	(\$11,678,155)
4 Bond Financed Projects	80.00%	\$95,976,691	\$61,525,522	\$20,005,746	\$177,507,959
5 Projects Paid From Other Sources		\$23,994,173	\$15,381,381	\$5,001,436	\$44,376,990
6 <u>Financing Analysis:</u>					
7 Projects Financed With Revenue Bonds:					
8 Sources of Funds:					
9 Estimated Par Amount	5.50% Int for 30 Years	\$105,911,788	\$67,894,381	\$22,076,655	\$195,882,824
10 Estimated Int Earnings on Const Fund	0.00% Int for 0 Months	\$0	\$0	\$0	\$0
11 Total Sources of Funds		\$105,911,788	\$67,894,381	\$22,076,655	\$195,882,824
12 Uses of Funds:					
13 Project Costs Financed		\$95,976,691	\$61,525,522	\$20,005,746	\$177,507,959
14 Cost of Issuance	2.50% of Par Amount	\$2,647,795	\$1,697,360	\$551,916	\$4,897,071
15 Debt Service Reserve	1 Years of D.S.	\$7,287,302	\$4,671,499	\$1,518,993	\$13,477,794
16 Capitalized Interest	0 Years Interest	\$0	\$0	\$0	\$0
17 Underwriters Discount	0 of Par Amount	\$0	\$0	\$0	\$0
18 Debt Service Surety	0.00% of Annual Debt Service	\$0	\$0	\$0	\$0
19 Cost of Bond Insurance	0.00% of Total D.S.	\$0	\$0	\$0	\$0
20 Total Uses of Funds		\$105,911,788	\$67,894,381	\$22,076,655	\$195,882,824
21 Annual Debt Service		\$7,287,302	\$4,671,499	\$1,518,993	\$13,477,794
22 Total Principal & Interest Payments over Term of Loan		\$218,619,055	\$140,144,980	\$45,569,785	\$404,333,820
23 <u>Projects Paid From Other Sources</u>		\$23,994,173	\$15,381,381	\$5,001,436	\$44,376,990
24 <u>Total Project Costs</u>		\$242,613,228	\$155,526,361	\$50,571,222	\$448,710,810
25 <u>Water Impact Fee Calculation:</u>					
26 Capacity					
27 Million Gallons Per Day (MGD)		86.40	72.00	72.00	72.00
28 Equivalent Residential Connections (ERCs) @ 300 Gallons Per Day		288,000	240,000	240,000	240,000
29 Cost per ERC		\$842	\$648	\$211	\$1,701
30 Credit for NPV of Debt Service Included in Usage Rates		-\$71	-\$54	-\$18	-\$143
31 <u>Water Impact Fee per ERC</u>		\$771	\$594	\$193	\$1,558
32 Reduction for Contingency	3%	\$748	\$576	\$187	\$1,511
33 Percentage of Full Cost Recovery					100.00%
34 Proposed Water Impact Fee per ERC		\$748	\$576	\$187	\$1,511
35 <u>Current Water Impact Fee per ERC</u>					\$1,386
36 Change					\$125
37 Percent Change					9%

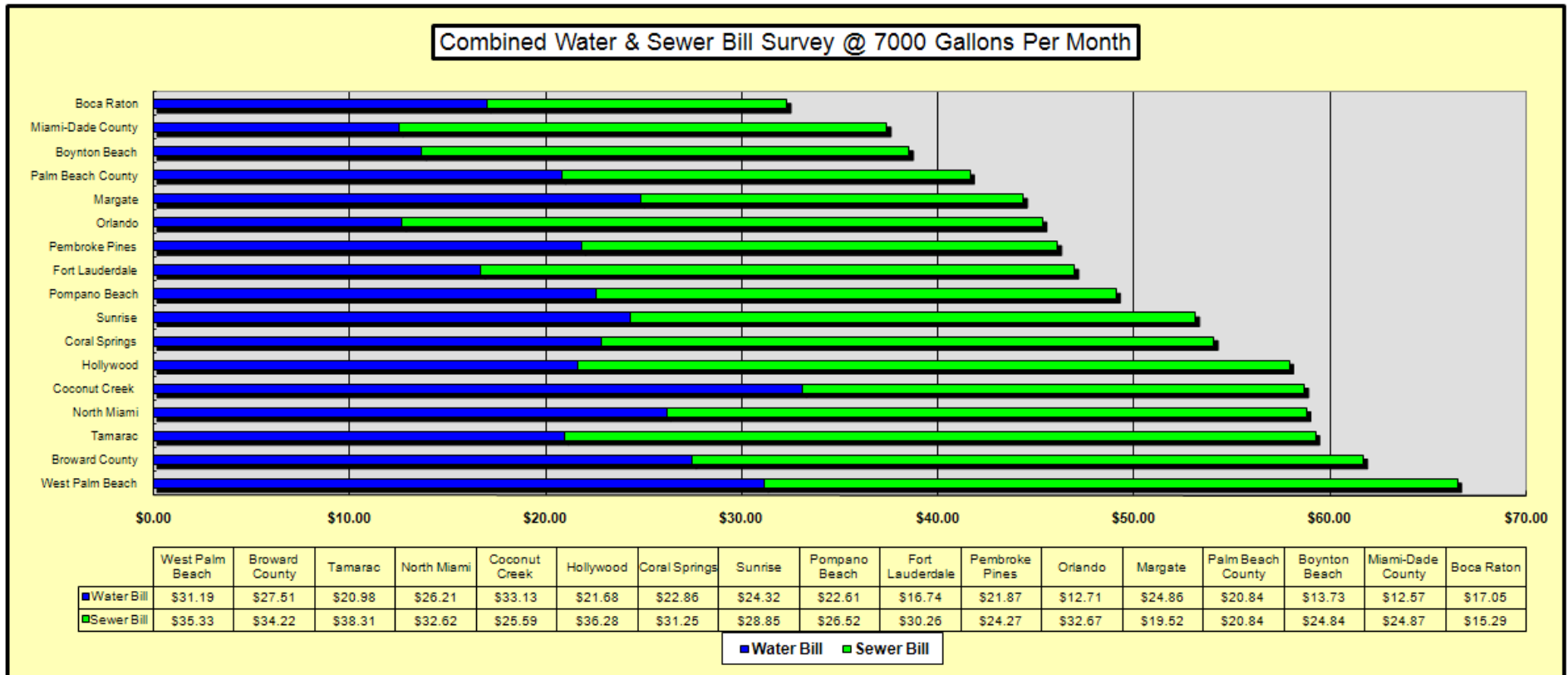
UTILITY RATE STUDY APPENDIX C

Schedule B3 – Sewer Impact Fee Calculation

Fort Lauderdale, FL			
Impact Fee Study - Implementation in FY 2009			
Wastewater Impact Fee Calculation			
	Collection	Treatment	Total
1 <u>Fixed Asset/CIP Allocation:</u>			
2 <u>Wastewater Project Costs:</u>	\$134,176,979	\$130,159,368	\$264,336,346
3 Less: Grant Funding 15.00%	(\$20,126,547)	(\$19,523,905)	(\$39,650,452)
4 Bond Financed Projects 80.00%	\$91,240,346	\$88,508,370	\$179,748,716
5 Projects Paid From Other Sources	\$22,810,086	\$22,127,093	\$44,937,179
6 <u>Financing Analysis:</u>			
7 Projects Financed With Revenue Bonds:			
8 Sources of Funds:			
9 Estimated Par Amount 5.50% Int for 30 Yrs	\$100,685,156	\$97,670,378	\$198,355,534
10 Estimated Int Earnings on Const Fund 0.00% Int for 0 Mnths	\$0	\$0	\$0
11 Total Sources of Funds	\$100,685,156	\$97,670,378	\$198,355,534
12 Uses of Funds:			
13 Project Costs Financed	\$91,240,346	\$88,508,370	\$179,748,716
14 Cost of Issuance 2.50% of Par Amount	\$2,517,129	\$2,441,759	\$4,958,888
15 Debt Service Reserve 1 Years of D.S.	\$6,927,681	\$6,720,248	\$13,647,930
16 Capitalized Interest 0 Years Interest	\$0	\$0	\$0
17 Underwriters Discount 0 of Par Amount	\$0	\$0	\$0
18 Debt Service Surety 0.00% of Annual Debt Service	\$0	\$0	\$0
19 Cost of Bond Insurance 0.00% of Total D.S.	\$0	\$0	\$0
20 Total Uses of Funds	\$100,685,156	\$97,670,378	\$198,355,534
21 Annual Debt Service	\$6,927,681	\$6,720,248	\$13,647,930
22 Total Principal & Interest Payments over Term of Loan	\$207,830,441	\$201,607,452	\$409,437,894
23 <u>Projects Paid From Other Sources</u>	\$22,810,086	\$22,127,093	\$44,937,179
24 <u>Total Project Costs</u>	\$230,640,528	\$223,734,545	\$454,375,073
25 <u>Wastewater Impact Fee Calculation:</u>			
26 Capacity			
27 Million Gallons Per Day (MGD)	66.84	55.70	55.70
28 Equivalent Residential Connections (ERCs) @ 300 Gallons Per Day	222,800	185,667	185,667
29 Cost per ERC	\$1,035	\$1,205	\$2,240
30 Credit for NPV of Debt Service Included in Usage Rates	-\$145	-\$168	-\$313
31 <u>Wastewater Impact Fee per ERC</u>	\$890	\$1,037	\$1,927
32 <u>Reduction for Contingency</u> 3%	\$864	\$1,006	\$1,869
33 <u>Percentage of Full Cost Recovery</u>			100.00%
34 <u>Proposed Wastewater Impact Fee per ERC</u>	\$864	\$1,006	\$1,869
35 <u>Current Wastewater Impact Fee - per ERC</u>			\$651
36 <u>Change</u>			\$1,218
37 <u>Percent Change</u>			187%

Appendix C
Rate & Impact Fee Survey Results

Schedule C1– 2009 Residential Rate Survey



Survey Does Not Include Drought Rate/Water use Restriction Surcharges or Utility Taxes

Schedule C2 – 2008 Impact Fee Survey

