



227 West Trade Street  
Suite 1400  
Charlotte, NC 28202

Phone 704 • 373 • 1199  
Fax 704 • 373 • 1113

[www.raftelis.com](http://www.raftelis.com)

June 23, 2017

The Honorable Mayor and City Commission  
City of Pompano Beach  
Post Office Drawer 1300  
Pompano Beach, Florida 33061

Dear Ladies and Gentlemen:

Raftelis Financial Consultants, Inc. ("RFC") is pleased to provide this letter report to the City of Pompano Beach (City) to document the results of the rate study update prepared for the City's Utilities Department (Utility Department) for fiscal years (FY) 2018 through 2022. Last year, the utility rate and financial planning model (Model) developed for the City indicated that rates did not need to be adjusted for FY 2017 due to adequate reserve funds. It should be noted that the last time water and sewer rates were increased was January of 2011. This letter addresses the projected revenue sufficiency of the water, wastewater, and reuse utilities at existing rates for FY 2018 - 2022 and the revenue sufficiency of the stormwater utility under the rate adjustments previously approved by the Commission (a 10-year plan for stormwater rate adjustments).

## **A. Water, Reuse, and Wastewater Utilities**

### ***Water and Wastewater Fund Revenue Sufficiency for FY 2018***

RFC has updated the Model to reflect year-to-date results for FY 2017 and the Utility Department's recommended 2018 operating and capital budget to provide a forecast of the projected financial sufficiency of the water and wastewater utilities for FY 2018. To be conservative, the analysis was also based on the assumption that billable water and wastewater flow would return to the lower levels, as opposed to the higher flows demonstrated in FY 2015 and FY 2016. Based on the projected revenues and expenditures in FY 2018, it is anticipated that the water and wastewater utilities will generate a deficit of about \$5.0 million due to the following factors:

- The FY 2018 budget for operations and maintenance expenses is approximately 6.6% higher than last year's budget which reflects increase in pension costs, engineering costs, FAA land rent for wells, and an additional position that is transferring from the Stormwater Fund to the Utility Fund.
- Water and wastewater flow assumptions assume more normal weather conditions, but reflect increased flow resulting from growth in the customer base.

As of the beginning of September, 2016, Utility Fund 412 (the water and wastewater fund) had approximately \$26 million in uncommitted reserves. The Utility Department's target uncommitted reserve fund balance is 50% of total revenue requirements, or approximately \$23.3 million for FY 2018. The anticipated deficit of \$5.0 million will reduce the fund balance below the target.

***Water and Wastewater Fund Revenue Sufficiency for FY 2018 – FY 2021***

The Utility Department's capital improvement plan for the next 5 years is approximately \$56.1 million, as shown in the Table 1. In addition to on-going or programmatic expenditures for the annual repair and replacement of water lines, re-lining of wastewater collection lines, and meter replacement, the following key capital improvement projects are scheduled to be completed within the next 5 years:

**Water**

- Water filter rehabilitation (\$8.3 million)
- Renovation of the old electrical system at the water treatment plant (\$7.8 million)
- Maintenance, rehabilitation, and operational enhancements to existing treatment plant and membrane plant (\$2.4 million)
- Transfer station rehabilitation (\$2.1 million)

**Reuse**

- Construction of reuse tank and booster station (\$14 million)

**Wastewater**

- Upgrade of the wastewater systems at Lyons Park in conjunction with the stormwater project (\$3.9 million)
- Upgrade and rehabilitation of wastewater lift stations (\$2.4 million)

**Table 1: Five-Year Expenditure Plan for Water, Reuse, and Wastewater (in millions)**

<b>5-Year CIP</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>TOTAL</b>
<b>Water projects</b>	\$15.1	\$6.4	\$1.4	\$4.0	\$1.5	\$28.4
<b>Reuse projects</b>	\$0.7	\$0.6	\$14.7	\$0.7	\$0.8	\$17.5
<b>Wastewater projects</b>	\$4.9	\$1.2	\$1.7	\$1.7	\$1.5	\$11.0
<b>Total</b>						<b>\$56.8</b>

The Utility Department is anticipating issuing SRF loans for approximately 60% of the five-year CIP which will cause total debt service payments to increase over the next few years. (If SRF loans are not available, then the Utility Department may need to issue revenues bonds which carry higher

interest rates.) Debt service payments for the Utility Department's Series 2006 revenue bonds will cease in FY 2021. However, debt service payments for SRF loans will begin prior to FY 2021, which means debt service costs will increase before they eventually decrease. The Utility Department has set a target debt service coverage ratio of 1.50 on total debt service and a target debt service coverage ratio of 2.0 on revenue bond debt, which means revenues from rates must be sufficient to meet these targets.

For the Utility Department to be able to achieve a debt service coverage ratio of at least 1.50 on total debt service (and 2.0 debt service coverage in the event revenue bonds are issued), as well as replenish fund balances to maintain target levels for uncommitted reserve funds, it is recommended that the Utility Department increase water, reuse, and wastewater rates over the next five-year period (FY 2018 to FY 2022). Table 2 shows the projected rate increases over the five-year forecast period (refer to Attachment A for the proposed water, sewer and reuse rates). It should be noted that fund balances are used in the first few years until revenues from rate increase are sufficient to meet revenue requirements, which allows for programmatic annual rate increases.

**Table 2: Preliminary Five-Year Forecast of Water, Reuse, and Wastewater Rate Increases**

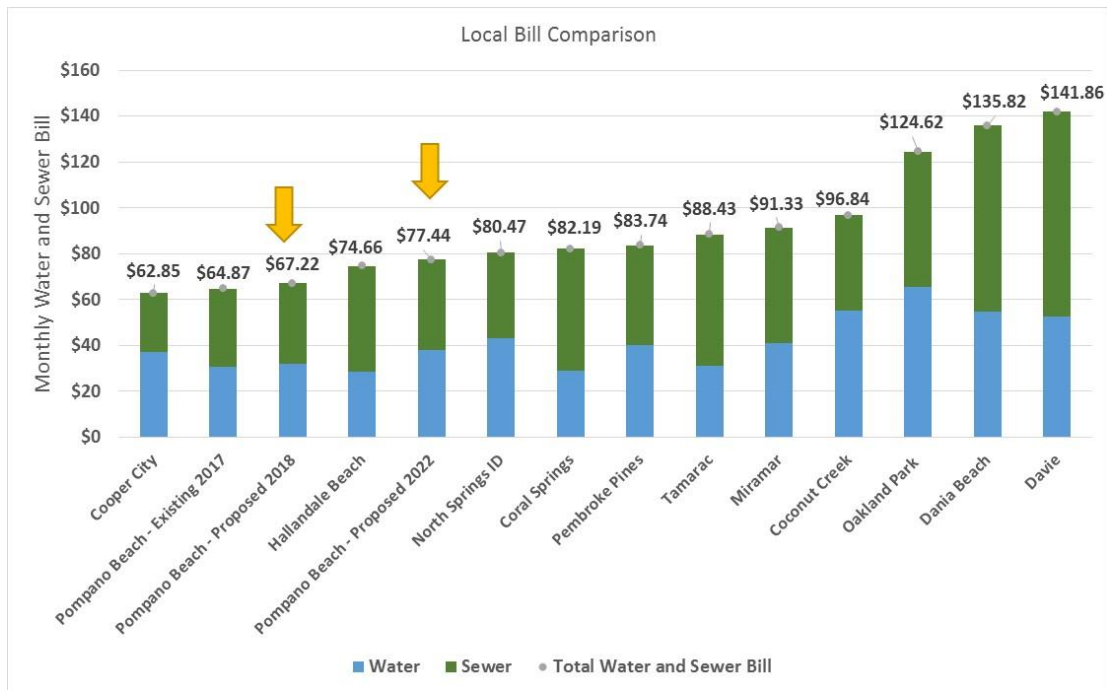
YEAR	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Water	4.25%	4.25%	4.25%	4.25%	4.25%
Reuse	4.25%	4.25%	4.25%	4.25%	4.25%
Wastewater	3.00%	3.00%	3.00%	3.00%	3.00%

### **Customer Impacts and Comparison with Other Utilities**

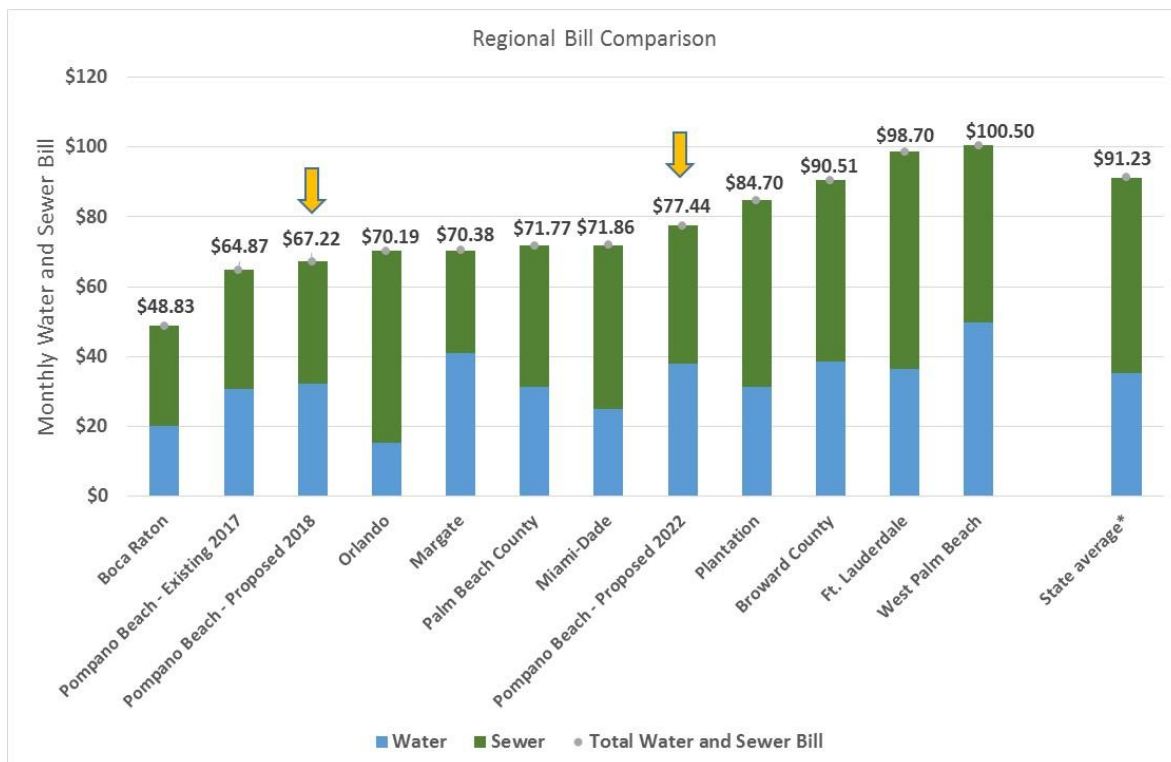
Since the Utility Department's last rate increase was in January 2011, the current and Proposed FY 2018 monthly water and sewer bill for the average residential single-family customer using 8,000 gallons of water is among the lowest when compared to both local and regional utilities, as shown in Exhibits 1 and 2. These exhibits also show the water and sewer bill under the proposed FY 2022 rates, which continue to compare favorably as the charts do not account for the future rate adjustments (over the next 5 years) that the other utilities may implement.

Under the proposed rates increases, the average residential single-family customer using 8,000 gallons will have an increase in their water and sewer bill of 3.6% or \$2.35 in FY 2018. The projected monthly water and sewer bill *in FY 2022* for the average single-family customer is \$12.57 higher than the current water and sewer bill (an average increase of \$2.50 per year over the next five years).

**Exhibit 1: Local Bill Comparison for Single-Family Residential Customers Using 8,000 gallons of water**



**Exhibit 2: Regional Bill Comparison for Single-Family Residential Customers Using 8,000 gallons of water**



## B. Stormwater Utility

The Utility Department contracted for the preparation of a Stormwater Master Plan which was completed in the first quarter of 2013. The study provided an updated capital improvement plan for stormwater projects which included approximately \$37.1 million in new capital investments. RFC developed a projection of annual stormwater rate adjustments necessary to fund the capital and operating expenses of the stormwater utility, as shown below, and which were approved by the Commission on September 24, 2013.

**Table 3: Approved Stormwater Rate Increases**

YEAR	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Rate per ERU	\$3.21	\$3.43	\$3.68	\$3.93	\$4.21	\$4.50	\$4.82	\$5.15	\$5.52	\$5.90
% change		6.8%	7.3%	6.8%	7.1%	6.9%	7.1%	6.8%	7.2%	6.9%

The Utility Department has used reserve funds to pay for capital projects over the past 3 years. Table 4 shows the capital improvement plan for the stormwater utility over the next five years, which totals \$29.0 million and which is expected to be funded with SRF loans. It should be noted that the actual stormwater project costs to date have been above master plan estimates by approximately 30% to 50%.

**Table 4 : Stormwater Capital Improvement Plan (In millions)**

5-Year CIP	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	5-Year TOTAL
Stormwater projects	\$11.0	\$4.7	\$4.4	\$4.3	\$4.6	\$29.0

The stormwater fund's uncommitted fund balance (Fund 425) was approximately \$1.2 million as of the beginning of September 2017. The City's internal reserve fund target of 50% of revenue requirements equates to a fund balance of approximately \$1.5 million. Based on the current level of capital expenditures identified in the stormwater CIP and current fund balances, the approved stormwater rate adjustments over the next one to two years are expected to be sufficient to meet the revenue requirements of the Stormwater Utility. However, this rate forecast will need to be monitored since costs of construction and availability of SRF funding may change, as well as the identification of additional projects. Any one of these factors could cause the current rate projections to be inadequate in future years.

RFC appreciates the opportunity to work with the City of Pompano Beach on this very important engagement. If you have any questions about the information presented above please contact me at (704) 373-1199.

Sincerely,

A handwritten signature in black ink, reading "Elaine Conti". The signature is written in a cursive style with a large, stylized "E" and a long, sweeping underline.

Elaine V. Conti  
Senior Manger  
Raftelis Financial Consultants, Inc.

## APPENDIX A – Schedule of Existing and Proposed Rates

**WATER**

**Volume Charge per 1,000 gallons (Inside-City)**

		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
		Existing	Proposed				
<b>Single and Multi-Family Rate</b>							
Block 1		\$ 2.24	\$ 2.34	\$ 2.44	\$ 2.54	\$ 2.65	\$ 2.76
	% Change		4.46%	4.27%	4.10%	4.33%	4.15%
Block 2		\$ 3.07	\$ 3.20	\$ 3.34	\$ 3.48	\$ 3.63	\$ 3.78
	% Change		4.23%	4.37%	4.19%	4.31%	4.13%
Block 3		\$ 4.27	\$ 4.45	\$ 4.64	\$ 4.84	\$ 5.05	\$ 5.26
	% Change		4.22%	4.27%	4.31%	4.34%	4.16%
Block 4		\$ 6.00	\$ 6.26	\$ 6.53	\$ 6.81	\$ 7.10	\$ 7.40
	% Change		4.33%	4.31%	4.29%	4.26%	4.23%
<b>Commercial/Business Rate</b>							
Block 1		\$ 2.24	\$ 2.34	\$ 2.44	\$ 2.54	\$ 2.65	\$ 2.76
	% Change		4.46%	4.27%	4.10%	4.33%	4.15%
Block 2		\$ 3.24	\$ 3.38	\$ 3.52	\$ 3.67	\$ 3.83	\$ 3.99
	% Change		4.32%	4.14%	4.26%	4.36%	4.18%
<b>Irrigation Rate</b>							
Block 1		\$ 3.44	\$ 3.59	\$ 3.74	\$ 3.90	\$ 4.07	\$ 4.24
	% Change		4.36%	4.18%	4.28%	4.36%	4.18%
Block 2		\$ 4.61	\$ 4.81	\$ 5.01	\$ 5.22	\$ 5.44	\$ 5.67
	% Change		4.34%	4.16%	4.19%	4.21%	4.23%
Block 3		\$ 6.23	\$ 6.49	\$ 6.77	\$ 7.06	\$ 7.36	\$ 7.67
	% Change		4.17%	4.31%	4.28%	4.25%	4.21%
Block 4		\$ 8.32	\$ 8.67	\$ 9.04	\$ 9.42	\$ 9.82	\$ 10.24
	% Change		4.21%	4.27%	4.20%	4.25%	4.28%

**Outside-City rates will be increased by 25%.**

**WATER****Monthly Base Charge per Meter Size (Inside-City)**

		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
		Existing	Proposed				
<b>Single Family</b>							
3/4"		\$ 12.88	\$ 13.43	\$ 14.00	\$ 14.60	\$ 15.22	\$ 15.87
	% Change		4.27%	4.24%	4.29%	4.25%	4.27%
1"		\$ 16.74	\$ 17.45	\$ 18.19	\$ 18.96	\$ 19.77	\$ 20.61
	% Change		4.24%	4.24%	4.23%	4.27%	4.25%
1 1/2"		\$ 23.60	\$ 24.60	\$ 25.65	\$ 26.74	\$ 27.88	\$ 29.06
	% Change		4.24%	4.27%	4.25%	4.26%	4.23%
2"		\$ 33.46	\$ 34.88	\$ 36.36	\$ 37.91	\$ 39.52	\$ 41.20
	% Change		4.24%	4.24%	4.26%	4.25%	4.25%
<b>Multi-Family</b>							
3/4"		\$ 8.86	\$ 9.24	\$ 9.63	\$ 10.04	\$ 10.47	\$ 10.91
	% Change		4.29%	4.22%	4.26%	4.28%	4.20%
1"		\$ 11.91	\$ 12.42	\$ 12.95	\$ 13.50	\$ 14.07	\$ 14.67
	% Change		4.28%	4.27%	4.25%	4.22%	4.26%
1 1/2"		\$ 14.25	\$ 14.86	\$ 15.49	\$ 16.15	\$ 16.84	\$ 17.56
	% Change		4.28%	4.24%	4.26%	4.27%	4.28%
2"		\$ 23.32	\$ 24.31	\$ 25.34	\$ 26.42	\$ 27.54	\$ 28.71
	% Change		4.25%	4.24%	4.26%	4.24%	4.25%
3"		\$ 89.32	\$ 93.12	\$ 97.08	\$ 101.21	\$ 105.51	\$ 109.99
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
4"		\$ 113.36	\$ 118.18	\$ 123.20	\$ 128.44	\$ 133.90	\$ 139.59
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
6"		\$ 170.47	\$ 177.71	\$ 185.26	\$ 193.13	\$ 201.34	\$ 209.90
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
8"		\$ 235.54	\$ 245.55	\$ 255.99	\$ 266.87	\$ 278.21	\$ 290.03
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
10"		\$ 357.05	\$ 372.22	\$ 388.04	\$ 404.53	\$ 421.72	\$ 439.64
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
Each additional unit		\$ 4.08	\$ 4.25	\$ 4.43	\$ 4.62	\$ 4.82	\$ 5.02
	% Change		4.17%	4.24%	4.29%	4.33%	4.15%
<b>Irrigation</b>							
3/4"		\$ 8.86	\$ 9.24	\$ 9.63	\$ 10.04	\$ 10.47	\$ 10.91
	% Change		4.29%	4.22%	4.26%	4.28%	4.20%
1"		\$ 11.91	\$ 12.42	\$ 12.95	\$ 13.50	\$ 14.07	\$ 14.67
	% Change		4.28%	4.27%	4.25%	4.22%	4.26%
1 1/2"		\$ 14.25	\$ 14.86	\$ 15.49	\$ 16.15	\$ 16.84	\$ 17.56
	% Change		4.28%	4.24%	4.26%	4.27%	4.28%
2"		\$ 23.32	\$ 24.31	\$ 25.34	\$ 26.42	\$ 27.54	\$ 28.71
	% Change		4.25%	4.24%	4.26%	4.24%	4.25%
3"		\$ 89.32	\$ 93.12	\$ 97.08	\$ 101.21	\$ 105.51	\$ 109.99
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
4"		\$ 113.36	\$ 118.18	\$ 123.20	\$ 128.44	\$ 133.90	\$ 139.59
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
6"		\$ 170.47	\$ 177.71	\$ 185.26	\$ 193.13	\$ 201.34	\$ 209.90
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
8"		\$ 235.54	\$ 245.55	\$ 255.99	\$ 266.87	\$ 278.21	\$ 290.03
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
10"		\$ 357.05	\$ 372.22	\$ 388.04	\$ 404.53	\$ 421.72	\$ 439.64
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%

**Outside-City rates will be increased by 25%.**

DRAFT



**WATER****Monthly Base Charge per Meter Size (Inside-City)**

		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
		Existing	Proposed	—————>			
<b>Commercial</b>							
3/4"		\$ 14.71	\$ 15.34	\$ 15.99	\$ 16.67	\$ 17.38	\$ 18.12
	% Change		4.28%	4.24%	4.25%	4.26%	4.26%
1"		\$ 19.10	\$ 19.91	\$ 20.76	\$ 21.64	\$ 22.56	\$ 23.52
	% Change		4.24%	4.27%	4.24%	4.25%	4.26%
1 1/2"		\$ 26.93	\$ 28.07	\$ 29.26	\$ 30.50	\$ 31.80	\$ 33.15
	% Change		4.23%	4.24%	4.24%	4.26%	4.25%
2"		\$ 38.18	\$ 39.80	\$ 41.49	\$ 43.25	\$ 45.09	\$ 47.01
	% Change		4.24%	4.25%	4.24%	4.25%	4.26%
3"		\$ 146.89	\$ 153.13	\$ 159.64	\$ 166.42	\$ 173.49	\$ 180.86
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
4"		\$ 186.54	\$ 194.47	\$ 202.73	\$ 211.35	\$ 220.33	\$ 229.69
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
6"		\$ 280.52	\$ 292.44	\$ 304.87	\$ 317.83	\$ 331.34	\$ 345.42
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
8"		\$ 387.75	\$ 404.23	\$ 421.41	\$ 439.32	\$ 457.99	\$ 477.45
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
10"		\$ 549.34	\$ 572.69	\$ 597.03	\$ 622.40	\$ 648.85	\$ 676.43
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
Each additional unit		\$ 7.60	\$ 7.92	\$ 8.26	\$ 8.61	\$ 8.98	\$ 9.36
	% Change		4.21%	4.29%	4.24%	4.30%	4.23%

**Outside-City rates will be increased by 25%.**

REUSE		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
		Existing	Proposed				
<b>Volume Charge per 1,000 gallons (Inside-City)</b>							
<b>Reuse Rate - Class One (for those connected to the sysetm prior to July 2011)</b>							
Block 1		\$ 0.61	\$ 0.64	\$ 0.67	\$ 0.70	\$ 0.73	\$ 0.76
	% Change		4.92%	4.69%	4.48%	4.29%	4.11%
Block 2		\$ 1.20	\$ 1.25	\$ 1.30	\$ 1.36	\$ 1.42	\$ 1.48
	% Change		4.17%	4.00%	4.62%	4.41%	4.23%
Block 3		\$ 1.78	\$ 1.86	\$ 1.94	\$ 2.02	\$ 2.11	\$ 2.20
	% Change		4.49%	4.30%	4.12%	4.46%	4.27%
<b>Reuse Rate - Class Two (for those connected to the sysetm AFTER to July 2011)</b>							
Block 1		\$ 0.85	\$ 0.89	\$ 0.93	\$ 0.97	\$ 1.01	\$ 1.05
	% Change		4.71%	4.49%	4.30%	4.12%	3.96%
Block 2		\$ 1.68	\$ 1.75	\$ 1.82	\$ 1.90	\$ 1.98	\$ 2.06
	% Change		4.17%	4.00%	4.40%	4.21%	4.04%
Block 3		\$ 2.49	\$ 2.60	\$ 2.71	\$ 2.83	\$ 2.95	\$ 3.08
	% Change		4.42%	4.23%	4.43%	4.24%	4.41%
<b>Outside-City rates will be increased by 25%.</b>							
REUSE							
<b>Monthly Base Charge per Meter Size (Inside-City)</b>							
		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
		Existing	Proposed				
3/4"		\$ 7.84	\$ 8.17	\$ 8.52	\$ 8.88	\$ 9.26	\$ 9.65
	% Change		4.21%	4.28%	4.23%	4.28%	4.21%
1"		\$ 19.59	\$ 20.42	\$ 21.29	\$ 22.19	\$ 23.13	\$ 24.11
			4.24%	4.26%	4.23%	4.24%	4.24%
1 1/2"		\$ 39.18	\$ 40.85	\$ 42.59	\$ 44.40	\$ 46.29	\$ 48.26
	% Change		4.26%	4.26%	4.25%	4.26%	4.26%
2"		\$ 62.68	\$ 65.34	\$ 68.12	\$ 71.02	\$ 74.04	\$ 77.19
	% Change		4.24%	4.25%	4.26%	4.25%	4.25%
3"		\$ 117.53	\$ 122.53	\$ 127.74	\$ 133.17	\$ 138.83	\$ 144.73
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
4"		\$ 195.88	\$ 204.20	\$ 212.88	\$ 221.93	\$ 231.36	\$ 241.19
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
6"		\$ 391.75	\$ 408.40	\$ 425.76	\$ 443.85	\$ 462.71	\$ 482.38
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
8"		\$ 626.81	\$ 653.45	\$ 681.22	\$ 710.17	\$ 740.35	\$ 771.81
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
10"		\$ 783.51	\$ 816.81	\$ 851.52	\$ 887.71	\$ 925.44	\$ 964.77
	% Change		4.25%	4.25%	4.25%	4.25%	4.25%
<b>Outside-City rates will be increased by 25%.</b>							

DRAFT

**Wastewater**

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
	Existing	Proposed				
<b>Volume Charge per 1,000 gallons (Inside-City)</b>						
<i>All Classes - volume charge</i>	\$ 2.77	\$ 2.85	\$ 2.94	\$ 3.03	\$ 3.12	\$ 3.21
<i>% Change</i>		2.89%	3.16%	3.06%	2.97%	2.88%
<b>Monthly Service Charge (10kgal Cap)</b>						
Residential	\$ 11.91	\$ 12.27	\$ 12.64	\$ 13.02	\$ 13.41	\$ 13.81
<i>% Change</i>		3.02%	3.02%	3.01%	3.00%	2.98%
Multi-Family (Per Unit)	\$ 11.41	\$ 11.75	\$ 12.10	\$ 12.46	\$ 12.83	\$ 13.21
<i>% Change</i>		2.98%	2.98%	2.98%	2.97%	2.96%
Commercial (Per Unit)	\$ 13.06	\$ 13.45	\$ 13.85	\$ 14.27	\$ 14.70	\$ 15.14
<i>% Change</i>		2.99%	2.97%	3.03%	3.01%	2.99%

**Outside-City rates will be increased by 25%.**

DRAFT