



To: Mayor & City Council

From: Michael Kovacs, City Manager
Raju Anthony, Director of Finance

Date: August 02, 2018

Agenda Item & Caption: Utility Billing Rate Study Presentation

Action Requested: N/A

Prior Action: N/A

Financial Considerations: N/A

Overview and Background:

The City of Fate entered into a consultant contract with NewGen Strategies and Solutions, LLC, for evaluating the FY 2018 utility rates and to recommend the utility rates for FY 2019. Utility funds account for receipt, distribution, and disposal of water, sewer, and solid waste for city residents.

Based on the study, NewGen Strategies and Solutions, LLC., recommends no rate increase for FY 2019.

Supporting Documents:

- NewGen consultant study summary

Final Report | July 2018

Water and Wastewater Rate Update

City of Fate, Texas

Prepared by:



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Section 1

INTRODUCTION

The City of Fate (City) retained NewGen Strategies and Solutions, LLC (NewGen) to perform an Update to a rate design study (Study) completed in July 2017 for the City's water and wastewater utilities. The purpose of the Update was to determine the total cost of providing water and wastewater services, review performance under the current rates and propose rate changes (if required) to safeguard the financial integrity of the City. This report describes the analysis performed for the City and makes recommendations with respect to rates to be charged to the City's water and wastewater customers. This report consists of four sections, the last of which details NewGen's recommendations. Schedules, which supplement the findings in this report, are provided in the Appendix.

1.1 Background

The City, a suburb east of Dallas in Rockwall County, was identified in the 2010 National Census as the fastest growing city in Texas for the past decade, and one of the fastest-growing cities in the United States. The City provides water services to approximately 4,810 retail connections and wastewater services to approximately 3,750 retail connections. The recent growth in the area has led to a number of capital improvement projects that need to be addressed to ensure the City can provide adequate service to customers.

The City currently purchases wholesale treated water from the North Texas Municipal Water District (NTMWD) and sends its wastewater back to NTMWD for treatment. Under the terms of the City's water and wastewater contract with NTMWD, the supplier has the ability to annually adjust the rates charged to the City to ensure they can fully recover the cost of providing service. Failure by the City of Fate to annually pass along these rate adjustments to the City's retail customers can adversely impact the financial integrity of the City's water and wastewater utility.

1.2 Current Retail Rates

The current retail water rates are shown in Table 1-1 below. The minimum charges increase with the increasing meter size, which is consistent with industry best management practices. Larger water meters can place greater demands on the water system and thus, should pay a greater fixed charge to compensate the utility for the infrastructure put into service to accommodate this increased demand. The City uses a four-tiered volumetric rate structure wherein a customer pays more, per unit of consumption, as more water is utilized. The City currently charges a 1.25 multiplier for providing service to customers outside city limits.

**Table 1-1
Current Retail Water Rates**

Meter Size (inches)	Monthly Minimum Bill	
	(Inside City)	(Outside City)
5/8	\$ 21.32	\$ 26.65
3/4	21.32	26.65
1	53.29	66.61
1 ½	106.58	133.23
2	170.53	213.16
3	319.80	399.75
4	533.00	666.25
6	1,066.00	1,332.50
8	1,705.60	2,132.00
10	2,451.80	3,064.75

Volumetric Charges (per 1,000 gallons)	Residential		Commercial	
	(Inside City)		(Outside City)	
0 - 5,000	\$ 4.90	\$ 5.14	\$ 6.13	\$ 6.43
5,001 - 10,000	6.62	6.94	8.28	8.68
10,001 - 100,000	8.93	9.37	11.16	11.71
100,000+	12.51	12.65	15.64	15.81

Introduction

The current retail wastewater rates are shown in Table 1-2 below. The minimum charges for wastewater increase with increasing meter size and customers are charged a flat volumetric rate per 1,000 gallons. The volumetric charges for residential customers are based on the customer's three-month winter water average, which is intended to mitigate the impact of seasonal irrigation on wastewater bills, given that is water not collected in the wastewater system. The volumetric charges for non-residential (i.e., commercial) customers are based on actual water consumption.

**Table 1-2
Current Retail Wastewater Rates**

Meter Size (inches)	Monthly Minimum Bill (Inside City)	Monthly Minimum Bill (Outside City)
5/8	\$ 33.80	\$ 42.25
3/4	33.80	42.25
1	81.49	101.86
1 ½	162.98	203.73
2	260.77	325.96
3	488.94	611.18
4	814.89	1,018.61
6	1,629.79	2,037.24
8	2,607.66	3,259.58
10	3,747.96	4,684.95
Volumetric Charges (per 1,000 gallons)	Residential & Commercial (Inside City)	Residential & Commercial (Outside City)
All Consumption	\$ 4.71	\$ 5.89

Section 2 REVENUE REQUIREMENT

2.1 Revenue Requirement

NewGen developed a “Test Year” for the Study based on the Fiscal Year (FY) 2019 Preliminary Budget.¹ A Test Year is a common term in rate studies that refers to an adjusted budget that is used as a basis for setting rates. The Test Year should be representative of “typical” conditions, with adjustments for unusual or one-time expenses. The Test Year separates costs and allocates them specifically to the water and wastewater functions. The development of the Test Year was completed in coordination with City staff and reflects all known and measurable changes as of this report.

The Test Year was used to develop a five-year revenue requirement forecast for FY 2019 through FY 2023. The net revenue requirement identifies the amount that should be recovered from rates in order to fully recover the cost of providing service. In addition to the Test Year, the revenue requirement incorporates inflation factors, a capital improvement plan, and existing debt service. Current rate input and additional inflation factor details can be found in the Schedule 1 of the Appendix. The following sections within this report summarize the key factors affecting the projected revenue requirement. The five-year water and wastewater revenue requirement forecast is shown in Schedule 2. Table 2-1 shows the net revenue requirement forecast for each utility.

**Table 2-1
Total Revenue Requirement Forecast**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Water	\$ 4,983,491	\$ 4,973,001	\$ 5,290,650	\$ 5,566,850	\$ 5,792,761
Wastewater	3,967,210	3,780,647	3,815,163	4,466,824	5,024,403
Total	\$ 8,950,701	\$ 8,753,648	\$ 9,105,813	\$ 10,033,674	\$ 10,817,164

Tables 2-2 and 2-3 on the following page shows more detail for the individual service revenue requirements. Table 2-2 provides detail for Water, and Table 2-3 provides detail for Wastewater.

¹ The City’s fiscal year starts October 1 and ends September 30; the year cited is the year the fiscal year ends.

Section 2

**Table 2-2
Net Water Rate Revenue Requirement**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Water Revenue Requirement	\$4,983,491	\$4,973,001	\$5,290,650	\$5,566,850	\$5,792,761
<i>Expenses</i>					
NTMWD Expenses	\$2,519,616	\$2,771,578	\$2,965,588	\$3,113,867	\$3,207,283
Operating	762,012	658,998	686,104	714,959	745,704
Administration	760,639	771,142	810,192	851,360	894,766
Billing	193,690	195,283	202,766	210,663	219,008
Capital Projects	-	-	-	-	-
Capital Reserve	747,535	576,000	626,000	676,000	726,000
Total Expenses	\$4,983,491	\$4,973,001	\$5,290,650	\$5,566,850	\$5,792,761
<i>Revenue Offsets</i>					
Transfers In	\$ -	\$ -	\$ -	\$ -	\$ -
NTMWD Rebate	85,000	80,000	80,000	80,000	80,000
Other Revenues	418,605	418,605	418,605	418,605	418,605
Total Revenue Offsets	\$ 503,605	\$ 498,605	\$ 498,605	\$ 498,605	\$ 498,605
Net Water Rate					
Revenue Requirement	\$4,479,887	\$4,474,396	\$4,792,045	\$5,068,245	\$5,294,157

**Table 2-3
Net Wastewater Rate Revenue Requirement**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Wastewater Revenue Requirement	\$3,967,210	\$3,780,647	\$3,815,163	\$4,466,824	\$5,024,403
<i>Expenses</i>					
NTMWD Expenses	\$2,509,056	\$1,849,803	\$1,786,723	\$2,338,075	\$2,792,450
Operating	331,544	257,866	270,588	284,146	298,604
Administration	555,100	563,695	591,086	619,940	650,340
Billing	193,690	195,283	202,766	210,663	219,008
Capital Projects	-	-	-	-	-
Capital Reserve	377,820	914,000	964,000	1,014,000	1,064,000
Total Expenses	\$3,967,210	\$3,780,647	\$3,815,163	\$4,466,824	\$5,024,403
<i>Revenue Offsets</i>					
Transfers In	\$ 622,000	\$ -	\$ -	\$ -	\$ -
NTMWD Rebate	-	-	-	-	-
Other Revenues	735,451	725,202	726,593	1,180,318	1,668,964
Total Revenue Offsets	\$1,357,451	\$ 725,202	\$ 726,593	\$1,180,318	\$1,668,964
Net Wastewater Rate					
Revenue Requirement	\$2,609,759	\$3,055,445	\$3,088,570	\$3,286,506	\$3,355,439

2.2 Inflation Factors

The Test Year revenue requirement was used as the basis for the five-year financial forecast. Certain expenses were projected based on fixed costs such as debt service payments. However, the majority of expenses were Operations and Maintenance (O&M) related costs, which were inflated based on historical averages or industry standards as follows:

- General inflation at 2.62% per year.²
- Salaries increase 8.00% in FY 2020, and 3.00% per year for FY 2021 through FY 2023.³
- Benefits do not increase in FY 2020. Benefits for FY 2021 through FY 2023 increase at 10.00% per year.⁴
- Repair & Maintenance increases at 8.57% per year.⁵
- NTMWD Water Contract increases by approximately 10.00% in FY 2020. Fiscal Years 2021, 2022, and 2023 are estimated to increase by 7%, 5%, and 3% respectively.⁶
- General Fund Transfer increases 5.62% per year FY 2021 and forward.⁷

2.3 Capital Improvement Plan

The revenue requirement incorporates a capital improvement plan (CIP) provided by the City for the five-year forecast period. NewGen, per conversations with City staff, has budgeted \$400,000 in FY 2019 for an AMI Register Modernization project. In FY 2019, \$416,900 has been budgeted for the Downtown Water Line Replacement. Another \$105,000 is included in FY 2019 to fund the WoodCreek Tower beautification water project. The Blackland 12-inch waterline project is anticipated to be constructed in FY 2021 and is expected to be funded from impact fees. Additional revenues are budgeted to be set aside in preparation of future water capital projects in the amounts of \$100,000 in FY 2020- FY 2023. Lastly, \$450,000 has been put aside in both FY 2022 and FY 2023 for New Water Line/Capacity.

NewGen, per conversations with City staff, has budgeted \$328,628 FY 2019 to fund the Downtown Sewer Rehab wastewater projects. Another \$2,730,000 has been budgeted for the Sewer Line project for the Charter School, which is expected to be funded from impact fees. FY 2019 has \$622,000 budgeted for the Manhole Project. Lastly, \$100,000 per year in FY 2020- FY2023 have been set aside in preparation of future wastewater capital projects.

Additionally, NTMWD has invested in the Sabine Creek Wastewater Treatment Plant and Parker Creek wastewater lines used by the City for wastewater services. The City is billed by NTMWD for their portion of costs related to building the infrastructure. These costs will be funded by a combination of impact fees, developer contributions and rate revenues. A full list of the City's capital projects being funded is in Schedule 3.

² American City and County Municipal Cost Index 20-Year Average as of April 2018.

³ Per staff.

⁴ Per staff.

⁵ Average annual historical increase 2013 - 2016.

⁶ Per "System Snapshot" provided by NTMWD.

⁷ Per staff (2019 and 2020 Projections provided).

2.4 Capital Reserve

The revenue requirement includes continued funding of a capital reserve during the five-year forecast period. NewGen previously recommended the City establish a Capital Reserve, which has been funded since FY 2016. These funds are to be used for repairing/replacing system assets and will continue to be funded by rates. The Capital Reserve is based on an approximation of depreciation expenses, with the funding plan increasing by about \$100,000 each year from FY 2021 through FY 2023. The deposits will be allocated between water and wastewater annually to meet capital needs and ongoing rate objectives. See Schedule 6 for a detailed description of capital reserve funding and scheduled uses.

2.5 Debt Service

The revenue requirement includes the City's existing debt and the associated principal and interest payments. Each individual series of debt was allocated to water and wastewater based on how the funds were used, with total existing debt being allocated 98% to water and 2% to wastewater. The wastewater portion of existing debt service will be fully funded by impact fees throughout the five-year forecast. The amount of debt service in the water revenue requirement is equal to the annual debt service needed to be recovered from rate revenues, with the remaining debt service paid for through water impact fees. Annual debt service requirements can be seen in further detail in Schedule 3.

2.6 Revenue Offsets

In order to determine the revenues that are required to be recovered through rates, it is necessary to subtract other miscellaneous utility related revenues. The revenue offsets identified in this Study correlate with the budgeted values in the FY 2019 Preliminary Budget, and mostly remain constant throughout the five-year forecast, to be conservative. The NTMWD Rebate decreases to \$80,000 in FY 2020 and then remains constant. The transfers in from Sewer Impact and Parker Creek Fund both decrease in FY 2020 and then begin to increase per discussions with Staff.

Section 3 RATES

3.1 Recovery from Current Rates

In evaluating the performance of existing water and wastewater rates and to project future water and wastewater rates, some estimation of billed water consumption and billed wastewater flow is required. In making this estimation, NewGen relied on the most recent 12 months of billing data. Consumption data from the City's utility billing system for these months was then evaluated to determine average usage per connection. Consumption calculations can be seen in further detail in Schedule 4 (water) and Schedule 5 (wastewater).

Table 3-1 provides a summary of the projected revenue to be realized if current rates remain unchanged. It should be noted that for the purpose of this analysis, NewGen has assumed an annual growth rate in new customers of 10%⁸ for the residential customer class in FY 2019. This assumption is reduced to 9.50% in FY 2020, 7% in FY 2021, 6% in FY 2022 and 5% in FY 2023 to be conservative.

**Table 3-1
Revenue Recovery Under Current Rates**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Water Revenue Requirement	\$4,983,491	\$4,973,001	\$5,290,650	\$5,566,850	\$5,792,761
Projected Current Rate Revenue	4,462,041	4,865,378	5,195,216	5,498,301	5,767,129
Water-Related Other Revenues	503,605	498,605	498,605	498,605	498,605
Water Over/ (Under) Recovery	\$ (17,846)	\$ 390,981	\$ 403,171	\$ 430,056	\$ 472,972
Wastewater Revenue Requirement	\$3,967,210	\$3,780,647	\$3,815,163	\$4,466,824	\$5,024,403
Projected Current Rate Revenue	2,673,209	2,925,691	3,128,144	3,314,639	3,479,856
Wastewater-Related Other Revenues	1,357,451	725,202	726,593	1,180,318	1,668,964
Wastewater Over/ (Under) Recovery	\$ 63,450	\$ (129,754)	\$ 39,574	\$ 28,132	\$ 124,417
Total Over/ (Under) Recovery	\$ 45,604	\$ 261,227	\$ 442,745	\$ 458,189	\$ 597,390

As shown above, the City is projected to meet its combined water and wastewater FY 2019 revenue requirements with no rate changes. A detailed description of the revenue realized utilizing current water and wastewater rates can be found in Schedule 4 (water) and Schedule 5 (wastewater).

Table 3-2 illustrates the City's combined utility performance as compared to the City's financial policy objectives for the utility. These metrics include achieving a Debt Service Coverage Ratio of at least 1.1

⁸ Per staff.

Section 3

times the debt service requirements and maintaining an Operating Reserve of no less than the cost of operating expenses for 120 days.

**Table 3-2
Combined Utility Performance**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Debt Service Coverage					
Total Available Revenues for Debt Service Coverage	\$ 965,007	\$ 2,186,465	\$ 2,521,195	\$ 2,240,585	\$ 2,052,052
Annual Debt Service	737,950	740,275	741,650	737,475	742,126
Times Coverage	● 1.31	● 2.95	● 3.40	● 3.04	● 2.77
Target Debt Service Coverage Ratio	1.10	1.10	1.10	1.10	1.10
Operating Reserve					
Beginning Balance	\$ 3,940,182	\$ 3,985,786	\$ 4,247,014	\$ 4,689,759	\$ 5,147,947
Total Revenues	8,996,305	9,014,875	9,548,557	10,491,862	11,414,553
Total Expenses	(8,950,701)	(8,753,648)	(9,105,813)	(10,033,674)	(10,817,164)
Combined Over/(Under) Recovery	45,604	261,227	442,745	458,189	597,390
Ending Balance	3,985,786	4,247,014	4,689,759	5,147,947	5,745,337
Total Revenue Requirement	\$ 8,950,701	\$ 8,753,648	\$ 9,105,813	\$ 10,033,674	\$ 10,817,164
Less:					
Cash Capital Outlay (CCO)	1,125,355	1,490,000	1,590,000	1,690,000	1,790,000
Transfers Out	962,637	971,578	1,026,181	1,083,852	1,144,765
O&M (without CCO & Transfers)	\$ 6,862,709	\$ 6,292,070	\$ 6,489,632	\$ 7,259,822	\$ 7,882,399
Days Operating Reserve	● 212	● 246	● 264	● 259	● 266
Target Days Operating Reserve	120	120	120	120	120
Days Total Reserve of Total Revenue Requirement	163	177	188	187	194

3.2 Proposed Water Rates

NewGen recommends the City make no changes to the current water rate in FY 2019. From the assumptions in this most recent projection, the City may not need a rate increase through FY 2023. This is based on the current assumptions and may merit revision if future needs vary from the current expectations.

3.3 Proposed Wastewater Rates

NewGen recommends no change to wastewater rates. Under the current assumptions, no increase is projected to be required through FY 2023. This, like water, is based on many assumptions and may merit revision if future operations or capital needs vary from the current expectations.

3.4 Proposed Rates Summary

The complete summary of utility performance using the proposed rates can be found in Schedule 7. Also, a regional comparison of rates from different cities can be found in Schedule 8.

Section 4

RECOMMENDATIONS

Listed below are the findings and recommendations from the water and wastewater rate study update.

■ **Recommended Rates:**

NewGen recommends the City make no changes to water or wastewater rates for Fiscal Year 2019. NewGen recommends the City review rate requirements and revenue sufficiency annually.

■ **Capital Reserves:**

NewGen recommends the City continue funding the Capital Reserve, increasing the total allocation annually to meet City's cash funding objectives.

■ **Closely Monitor Growth Patterns:**

The assumptions in this Study have all been vetted by City staff and are reasonable given current market conditions. That said, the proposed revenue performance is critically linked to rapid growth projections. NewGen recommends City staff track monthly permitting activity and compare growth to the anticipated outcomes in this five-year forecast.

■ **Ensure Financial Stability:**

The City has internal financial policies requiring the utility to maintain a 1.1 Debt Service Coverage Ratio and a Working Capital Balance at a minimum amount of 120 days of annual operating expenses. To the extent rates do not generate sufficient revenue to meet these policies, then action should be taken to amend the City's rates. Failure to abide by the City's own financial policies and/or maintain required debt service coverage ratios could result in a reduced bond rating which, consequentially, can result in a higher, long-term borrowing cost for the City and ultimately higher rates to ratepayers.

■ **Wastewater Monthly Minimum Charge:**

It is a best management practice within the wastewater industry to have a uniform monthly minimum charge for all wastewater customers, regardless of the size of the water meter that the customer uses. Unlike water usage, where a larger meter allows for a customer to take more water, wastewater is charged based on the amount of flow and strength related to the wastewater generated by each customer. NewGen recommends in the future the City examine a potential phase-in over a 5 to 10 year period to a monthly minimum charge that is the same for all wastewater customers.

Appendix

List of Schedules

- 1 Connections/Billing Unit Inputs and Inflation Assumptions
- 2 Five-Year Combined Water and Wastewater Revenue Requirement
- 3 Capital Improvement Plan and Debt Service
- 4 Water Revenue Realized Under Proposed Rates
- 5 Wastewater Revenue Realized Under Proposed Rates
- 6 Five-Year Capital Reserve Balances
- 7 Performance Summary Under Proposed Rates
- 8 Regional Bill Comparison – Monthly Bills at 5,000 and 10,000 Gallons



GENERAL ASSUMPTIONS

Test Year	2019
Beginning Fund Balance	\$ 3,940,182
Target Debt Service Coverage	1.10
Target Days Operating Reserve	120

CURRENT WATER RATES

Minimum Bill	Residential		Commercial	
	Inside	Outside	Inside	Outside
Meter Size				
5 / 8 inch	\$ 21.32	\$ 26.65	\$ 21.32	\$ 26.65
3 / 4 inch	21.32	26.65	21.32	26.65
1 inch	53.29	66.61	53.29	66.61
1.5 inch	106.58	133.23	106.58	133.23
2 inch	170.53	213.16	170.53	213.16
3 inch	319.80	399.75	319.80	399.75
4 inch	533.00	666.25	533.00	666.25
6 inch	1,066.00	1,332.50	1,066.00	1,332.50
8 inch	1,705.60	2,132.00	1,705.60	2,132.00
10 inch	2,451.80	3,064.75	2,451.80	3,064.75
Volumetric Rates				
(per 1,000 gal.)				
0 - 5,000	\$ 4.90	\$ 6.13	\$ 5.14	\$ 6.43
5,001 - 10,000	6.62	8.28	6.94	8.68
10,001 - 100,000	8.93	11.16	9.37	11.71
100,000+	12.51	15.64	12.65	15.81

CURRENT WASTEWATER RATES

Minimum Bill	Residential		Commercial	
	Inside	Outside	Inside	Outside
Meter Size				
5 / 8 inch	\$ 33.80	\$ 42.25	\$ 33.80	\$ 42.25
3 / 4 inch	33.80	42.25	33.80	42.25
1 inch	81.49	101.86	81.49	101.86
1.5 inch	162.98	203.73	162.98	203.73
2 inch	260.77	325.96	260.77	325.96
3 inch	488.94	611.18	488.94	611.18
4 inch	814.89	1,018.61	814.89	1,018.61
6 inch	1,629.79	2,037.24	1,629.79	2,037.24
8 inch	2,607.66	3,259.58	2,607.66	3,259.58
10 inch	3,747.96	4,684.95	3,747.96	4,684.95
Volumetric Rates				
(per 1,000 gal.)	\$ 4.71	\$ 5.89	\$ 4.71	\$ 5.89

BUDGET FORECAST INFLATION FACTORS

Description	Year 1 2019	Year 2 2020	Year 3 2021	Year 4 2022	Year 5 2023
General	2.62%	2.62%	2.62%	2.62%	2.62%
Salaries	0.00%	8.00%	3.00%	3.00%	3.00%
Benefits	0.00%	0.00%	10.00%	10.00%	10.00%
Repairs & Maintenance	0.00%	8.57%	8.57%	8.57%	8.57%
Water Customer Growth	10.00%	9.50%	7.00%	6.00%	5.00%
Sewer Customer Growth	10.00%	9.50%	7.00%	6.00%	5.00%
NTMWD Water Contract	0.0%	10.0%	7.0%	5.0%	3.0%
General Fund Transfer	0.00%	0.00%	5.62%	5.62%	5.62%
Construction Cost Index	3.09%	3.09%	3.09%	3.09%	3.09%
None					

Inflation Factor Sources:

General - 20 year average MCI as of 4/2018

Salaries - Per staff.

Benefits - Per staff.

Repairs & Maintenance - Average annual increase 2013 - 2016

Water Growth - Per staff.

Wastewater Growth - Per staff.

NTMWD Water Contract - Per "System Snapshot" from North Texas

Construction Cost Index History - 20 year average CCI as of 4/2018

None

General Fund Transfer - Per Staff (2019 and 2020 Projections provided)



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
1			WATER					
2			Personnel Services					
3	200	5-70-51010	51010 Supervision	\$ 77,026	\$ 83,188	\$ 85,684	\$ 88,254	\$ 90,902
4	200	5-70-51020	51020 Operational	95,875	103,545	106,652	109,851	113,147
5	200	5-70-51025	51025 On-call Pay	-	-	-	-	-
6	200	5-70-51030	51030 Longevity Pay	360	389	400	412	425
7	200	5-70-51040	51040 Employee Merit	800	864	890	917	944
8	200	5-70-51070	51070 Overtime	2,200	2,376	2,447	2,521	2,596
9	200	5-70-51100	51100 FICA	13,490	14,569	15,006	15,456	15,920
10	200	5-70-51110	51110 Retirement	18,849	18,849	20,734	22,807	25,088
11	200	5-70-51119	51119 HRA Card Expense	20,180	20,180	22,198	24,418	26,860
12	200	5-70-51120	51120 Employee Health Care Cost	26,494	26,494	29,143	32,058	35,264
13	200	5-70-51121	51121 Dental Insurance	1,704	1,704	1,874	2,062	2,268
14	200	5-70-51122	51122 Life & Disability Insurance	1,195	1,195	1,315	1,446	1,591
15	200	5-70-51125	51125 Deminimis Benefits	-	-	-	-	-
16	200	5-70-51130	51130 Employee Testing	-	-	-	-	-
17	200	5-70-51140	51140 Worker's Comp Insurance	6,084	6,084	6,692	7,362	8,098
18	200	5-70-51150	51150 Unemployment	-	-	-	-	-
19	200	5-70-51160	51160 Employment Advertising	-	-	-	-	-
20	200	5-70-51180	51180 Misc Employee Costs	-	-	-	-	-
21			Total Personnel Services	\$ 264,258	\$ 279,438	\$ 293,036	\$ 307,564	\$ 323,102
22								
23			Operating Expenses					
24	200	5-70-52010	52010 Office Supplies	\$ 350	\$ 359	\$ 369	\$ 378	\$ 388
25	200	5-70-52020	52020 Printing	800	821	842	865	887
26	200	5-70-52030	52030 Office Equip/Furniture/Fixtures	150	154	158	162	166
27	200	5-70-52031	52031 IT Equipment	378	388	398	408	419
28	200	5-70-52040	52040 Janitorial	200	205	211	216	222
29	200	5-70-52050	52050 Motor Vehicle Fuel	6,000	6,157	6,319	6,484	6,654
30	200	5-70-52060	52060 Minor Tools & Equipment	2,500	2,566	2,633	2,702	2,772
31	200	5-70-52070	52070 Food	350	359	369	378	388
32	200	5-70-52090	52090 Wearing Apparel	3,400	3,489	3,580	3,674	3,771
33	200	5-70-52100	52100 Water Distribution Supplies	130,000	133,406	136,901	140,488	144,169
34	200	5-70-52120	52120 Chemicals	3,000	3,079	3,159	3,242	3,327
35	200	5-70-52130	52130 Landscaping Supplies	1,000	1,026	1,053	1,081	1,109
36	200	5-70-52160	52160 Miscellaneous Supplies	-	-	-	-	-
37	200	5-70-53010	53010 Building/Structures Repair	3,000	3,257	3,536	3,839	4,168



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
38	200	5-70-53020	53020 Office Equip Repair	-	-	-	-	-
39	200	5-70-53040	53040 Motor Vehicle Repair	2,500	2,714	2,947	3,199	3,473
40	200	5-70-53050	53050 Equip/Machinery Repair	6,000	6,514	7,072	7,678	8,336
41	200	5-70-53090	53090 Water & Wastewater Main Repair	25,000	27,142	29,468	31,993	34,735
42	200	5-70-53100	53100 Meter Taps & Srv Connect Repair	1,500	1,643	1,757	1,863	1,956
43	200	5-70-53105	53105 M/R Pump Station Repair	50,000	54,284	58,936	63,986	69,469
44	200	5-70-53110	53110 Pump Station Repairs	-	-	-	-	-
45	200	5-70-53120	53120 Miscellaneous Maint & Repairs	-	-	-	-	-
46	200	5-70-54000	54000 NTMWD Water Contract	2,519,616	2,771,578	2,965,588	3,113,867	3,207,283
47	200	5-70-54010	54010 Communications	1,500	1,539	1,580	1,621	1,663
48	200	5-70-54020	54020 Electricity	80,000	80,000	80,000	80,000	80,000
49	200	5-70-54021	54021 Natural Gas	-	-	-	-	-
50	200	5-70-54022	54022 Water & Sewer Service	-	-	-	-	-
51	200	5-70-54030	54030 Software Costs & IT Support	-	-	-	-	-
52	200	5-70-54040	54040 Lease/Rental of Equipment	500	513	527	540	554
53	200	5-70-54050	54050 Insurance - Liab & Property	10,637	10,916	11,202	11,495	11,796
54	200	5-70-54100	54100 Fees & Permits	10,000	10,262	10,531	10,807	11,090
55	200	5-70-54120	54120 Public Communications	-	-	-	-	-
56	200	5-70-54130	54130 Training & Travel	5,000	5,131	5,265	5,403	5,545
57	200	5-70-54140	54140 Membership Dues	250	257	263	270	277
58	200	5-70-54160	54160 Billing & Collection Services	-	-	-	-	-
59	200	5-70-54165	54165 Contract Services	27,500	10,500	10,775	11,057	11,347
60	200	5-70-54200	54200 Lab Services	12,500	12,828	13,164	13,508	13,862
61	200	5-70-54240	54240 Consulting Services	-	-	-	-	-
62	200	5-70-54250	54250 Miscellaneous Services	-	-	-	-	-
63	200	5-70-55100	55100 Incentive to Developer	100,000	-	-	-	-
64	200	5-70-55331	55331 Debt Interest Expense 2011 CO	-	-	-	-	-
65	200	5-70-55340	55340 Principal Pmt Contra	-	-	-	-	-
66	200	5-70-55341	55341 Capital Lease - Principal	-	-	-	-	-
67	200	5-70-55342	55342 Capital Lease - Interest	-	-	-	-	-
68	200	5-70-55500	55500 Pmt to GF in Lieu of Frch Txs	-	-	-	-	-
69	200	5-70-56030	56030 Capital - Vehicles	-	-	-	-	-
70	200	5-70-56040	56040 Capital - Machinery & Equip	-	-	-	-	-
71	200	5-70-57100	57100 Transfer to General Fund	-	-	-	-	-
72	200	5-70-57300	57300 Transfer to Other Funds	-	-	-	-	-
73	200	5-70-57700	57700 Transfer to I&S Fund	-	-	-	-	-
74	200	5-70-57701	57701 Transfer to W&S Debt Service	-	-	-	-	-



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
75	200	5-70-52011	52011 Postage	50	51	53	54	55
76	200	5-70-55600	55600 Contingency	8,689	-	-	-	-
77	200	5-70-56090	56090 Capital Purchase Miscellaneous	5,000	-	-	-	-
78			Total Operating Expenses	\$ 3,017,370	\$ 3,151,086	\$ 3,358,603	\$ 3,521,208	\$ 3,629,830
79								
80			TOTAL EXPENDITURES - WATER	\$ 3,281,628	\$ 3,430,575	\$ 3,651,692	\$ 3,828,826	\$ 3,952,987
81								
82			WASTEWATER					
83			Personnel Services					
84	200	5-75-51010	51010 Supervision	\$ -	\$ -	\$ -	\$ -	\$ -
85	200	5-75-51020	51020 Operational	95,855	103,523	106,629	109,828	113,122
86	200	5-75-51030	51030 Longevity Pay	210	227	234	241	248
87	200	5-75-51040	51040 Employee Merit	600	648	667	687	708
88	200	5-75-51070	51070 Overtime	4,000	4,320	4,450	4,583	4,721
89	200	5-75-51100	51100 FICA	7,705	8,321	8,571	8,828	9,093
90	200	5-75-51110	51110 Retirement	10,766	10,766	11,843	13,027	14,330
91	200	5-75-51119	51119 HRA Card Expense	15,135	15,135	16,649	18,313	20,145
92	200	5-75-51120	51120 Employee Health Care Cost	21,148	21,148	23,263	25,589	28,148
93	200	5-75-51121	51121 Dental Insurance	1,278	1,278	1,406	1,546	1,701
94	200	5-75-51122	51122 Life & Disability Insurance	700	700	770	847	932
95	200	5-75-51130	51130 Employee Testing	400	400	440	484	532
96	200	5-75-51140	51140 Worker's Comp Insurance	3,373	3,373	3,710	4,081	4,489
97	200	5-75-51160	51160 Employment Advertising	-	-	-	-	-
98	200	5-75-51180	51180 Msc Employee Costs	-	-	-	-	-
99			Total Personnel Services	\$ 161,170	\$ 169,839	\$ 178,630	\$ 188,055	\$ 198,169
100								
101			Operating Expenses					
102	200	5-75-52010	52010 Office Supplies	\$ 300	\$ 308	\$ 316	\$ 324	\$ 333
103	200	5-75-52050	52050 Motor Vehicle Fuel	8,000	8,210	8,425	8,645	8,872
104	200	5-75-52060	52060 Minor Tools & Equipment	2,000	2,052	2,106	2,161	2,218
105	200	5-75-52070	52070 Food	200	205	211	216	222
106	200	5-75-52090	52090 Wearing Apparel	2,550	2,617	2,685	2,756	2,828
107	200	5-75-52110	52110 Wastewater Collect Supplies	1,500	1,539	1,580	1,621	1,663
108	200	5-75-52120	52120 Chemicals	4,000	4,105	4,212	4,323	4,436
109	200	5-75-52160	52160 Miscellaneous Supplies	-	-	-	-	-
110	200	5-75-53010	53010 Building/Structures Repair	-	-	-	-	-



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1	Year 2	Year 3	Year 4	Year 5	
				FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
111	200	5-75-53040	53040	Motor Vehicle Repair	3,000	3,257	3,536	3,839	4,168
112	200	5-75-53050	53050	Equip/Machinery Repair	3,500	3,800	4,126	4,479	4,863
113	200	5-75-53090	53090	Water & Wastewater Main Repair	2,000	2,171	2,357	2,559	2,779
114	200	5-75-53100	53100	M/R Meter/Taps & Swr Connects	5,000	5,475	5,858	6,210	6,520
115	200	5-75-53110	53110	Lift Station Repairs	17,000	18,457	20,038	21,755	23,619
116	200	5-75-54010	54010	Communications	1,536	1,576	1,618	1,660	1,703
117	200	5-75-54020	54020	Electricity	10,000	10,000	10,000	10,000	10,000
118	200	5-75-54021	54021	Natural Gas	-	-	-	-	-
119	200	5-75-54030	54030	Software Costs & IT Support	4,000	4,105	4,212	4,323	4,436
120	200	5-75-54040	54040	Lease/Rental of Equipment	2,000	2,052	2,106	2,161	2,218
121	200	5-75-54050	54050	Insurance - Liab & Property	2,135	2,191	2,248	2,307	2,368
122	200	5-75-54130	54130	Training & Travel	1,500	1,539	1,580	1,621	1,663
123	200	5-75-54165	54165	Contract Services	14,000	14,367	14,743	15,129	15,526
124	200	5-75-54240	54240	Consulting Services	-	-	-	-	-
125	200	5-75-54250	54250	Miscellaneous Services	-	-	-	-	-
126	200	5-75-55340	55340	Principal Pmt Contra	-	-	-	-	-
127	200	5-75-55341	55341	Capital Lease - Principal	-	-	-	-	-
128	200	5-75-55342	55342	Capital Lease - Interest	-	-	-	-	-
129	200	5-75-55350	55350	Sabine Creek WWTP Share	1,226,511	1,240,363	1,324,475	1,768,909	2,249,445
130	200	5-75-55351	55351	Sabine Creek WWTP Share-Phase 2	-	-	-	-	-
131	200	5-75-55355	55355	Parker Creek Interceptor Share	1,282,545	609,440	462,248	569,166	543,005
132	200	5-75-55356	55356	Parker Creek Parallel Interceptor	-	-	-	-	-
134	200	5-75-55500	55500	Pmt to GF in Lieu of Frch Tx	-	-	-	-	-
135	200	5-75-55600	55600	Contingency	6,154	-	-	-	-
136	200	5-75-56030	56030	Capital - Vehicles	80,000	-	-	-	-
137	200	5-75-56040	56040	Capital - Machinery & Equip	-	-	-	-	-
138	200	5-75-57423	57423	Transfer to 2015 CO WS project	-	-	-	-	-
139				Total Operating Expenses	\$ 2,679,431	\$ 1,937,830	\$ 1,878,681	\$ 2,434,166	\$ 2,892,886
140									
141				TOTAL EXPENDITURES - Wastewater	\$ 2,840,600	\$ 2,107,669	\$ 2,057,311	\$ 2,622,221	\$ 3,091,054
142									



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
143			ADMINISTRATIVE					
144			Personnel Services					
145	200	5-85-51010	51010 Supervision	\$ 91,662	\$ 98,995	\$ 101,965	\$ 105,024	\$ 108,175
146	200	5-85-51020	51020 Operational	-	-	-	-	-
147	200	5-85-51030	51030 Longevity Pay	75	81	83	86	89
148	200	5-85-51040	51040 Employee Merit	200	216	222	229	236
149	200	5-85-51070	51070 Overtime	-	-	-	-	-
150	200	5-85-51090	51090 Auto Allowance	6,000	6,480	6,674	6,875	7,081
151	200	5-85-51095	51095 Other Allowances and Reimbursements	-	-	-	-	-
152	200	5-85-51100	51100 FICA	7,494	8,094	8,336	8,586	8,844
153	200	5-85-51110	51110 Retirement	10,473	10,473	11,520	12,672	13,940
154	200	5-85-51119	51119 HRA Card Expense	5,045	5,045	5,550	6,104	6,715
155	200	5-85-51120	51120 Employee Health Care Cost	8,801	8,801	9,681	10,649	11,714
156	200	5-85-51121	51121 Dental Insurance	426	426	469	515	567
157	200	5-85-51122	51122 Life & Disability Insurance	585	585	644	708	779
158	200	5-85-51130	51130 Employee Testing	-	-	-	-	-
159	200	5-85-51140	51140 Worker's Comp Insurance	255	255	281	309	339
160	200	5-85-51150	51150 Unemployment	-	-	-	-	-
161	200	5-85-51180	51180 Misc employee costs	-	-	-	-	-
162			Total Personnel Services	\$ 131,016	\$ 139,451	\$ 145,425	\$ 151,758	\$ 158,478
163								
164			Operating Expenses					
165	200	5-85-52010	52010 Office Supplies	\$ 250	\$ 257	\$ 263	\$ 270	\$ 277
166	200	5-85-52020	52020 Printing	500	513	527	540	554
167	200	5-85-52030	52030 Office Equip/Furniture/Fixtures	-	-	-	-	-
168	200	5-85-52031	52031 IT Equipment	378	388	398	408	419
169	200	5-85-52050	52050 Motor Vehicle Fuel	-	-	-	-	-
170	200	5-85-52060	52060 Minor Tools & Equipment	300	308	316	324	333
171	200	5-85-52090	52090 Wearing Apparel	200	205	211	216	222
172	200	5-85-53010	53010 Building/Structures Repair	-	-	-	-	-
173	200	5-85-53040	53040 Motor Vehicle Repair	-	-	-	-	-
174	200	5-85-53120	53120 Miscellaneous Maint & Repairs	-	-	-	-	-



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ FY 2019	Year 1 FY 2020	Year 2 FY 2021	Year 3 FY 2022	Year 4 FY 2023	Year 5 FY 2023
175	200	5-85-54010	54010	Communications	-	-	-	-	-
176	200	5-85-54021	54021	Natural Gas	-	-	-	-	-
177	200	5-85-54022	54022	Water & Sewer Service	8,000	8,210	8,425	8,645	8,872
178	200	5-85-54030	54030	Software Costs & IT Support	-	-	-	-	-
179	200	5-85-54040	54040	Lease/Rental of Equipment	-	-	-	-	-
180	200	5-85-54050	54050	Insurance - Liab & Property	-	-	-	-	-
181	200	5-85-54095	54095	Cred Cd Merchant Fees	-	-	-	-	-
182	200	5-85-54130	54130	Training & Travel	5,000	5,131	5,265	5,403	5,545
183	200	5-85-54210	54210	Accounting & Auditing	-	-	-	-	-
184	200	5-85-54220	54220	Engineering Services	45,000	45,000	46,179	47,389	48,630
185	200	5-85-54230	54230	Legal Services	111,333	111,333	114,250	117,243	120,315
186	200	5-85-54240	54240	Consulting Services	-	-	-	-	-
187	200	5-85-54250	54250	Miscellaneous Services	-	-	-	-	-
188	200	5-85-55200	55200	Claims and Damages	-	-	-	-	-
189	200	5-85-55340	55340	Principal Pmt Contra	-	-	-	-	-
190	200	5-85-55341	55341	Capital Lease - Principal	-	-	-	-	-
191	200	5-85-55342	55342	Capital Lease - Interest	-	-	-	-	-
192	200	5-85-55500	55500	Pmt to GF in Lieu of Franchise Tx	-	-	-	-	-
193	200	5-85-55600	55600	Contingency	27,500	28,221	28,960	29,719	30,497
194	200	5-85-56030	56030	Capital - Vehicles	-	-	-	-	-
195	200	5-85-56090	56090	Capital - Miscellaneous	-	-	-	-	-
196	200	5-85-57100	57100	Transfer to General Fund	962,637	971,578	1,026,181	1,083,852	1,144,765
197	200	5-85-57700	57700	Transfer to I&S Fund	-	-	-	-	-
198	200	5-85-57701	57701	Transfer to WS Debt Service Fund	-	-	-	-	-
199	200	5-85-54011	54011	Communications-UF	20,282	20,814	21,359	21,918	22,493
200	200	5-85-54031	54031	Software Costs & IT Support -UF-common cost	3,342	3,430	3,520	3,612	3,707
201			Total Operating Expenses	\$ 1,184,722	\$ 1,195,386	\$ 1,255,853	\$ 1,319,541	\$ 1,386,629	
202									
203			TOTAL EXPENDITURES - ADMIN	\$ 1,315,739	\$ 1,334,837	\$ 1,401,278	\$ 1,471,300	\$ 1,545,107	
204									
205			BILLING						
206			Personnel Services						
207	200	5-90-51010	51010	Supervision	\$ 47,732	\$ 51,551	\$ 53,098	\$ 54,690	\$ 56,331



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1	Year 2	Year 3	Year 4	Year 5	
				FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	
208	200	5-90-51020	51020	Operational	66,222	71,520	73,665	75,875	78,151
209	200	5-90-51030	51030	Longevity Pay	515	556	573	590	608
210	200	5-90-51040	51040	Employee Merit	600	648	667	687	708
211	200	5-90-51070	51070	Overtime	2,060	2,225	2,292	2,360	2,431
212	200	5-90-51100	51100	FICA	8,966	9,683	9,974	10,273	10,581
213	200	5-90-51110	51110	Retirement	12,529	12,529	13,782	15,160	16,676
214	200	5-90-51119	51119	HRA Card Expense	15,135	15,135	16,649	18,313	20,145
215	200	5-90-51120	51120	Employee Health Care Cost	18,882	18,882	20,770	22,847	25,132
216	200	5-90-51121	51121	Dental Insurance	1,278	1,278	1,406	1,546	1,701
217	200	5-90-51122	51122	Life & Disability Insurance	817	817	899	989	1,088
218	200	5-90-51140	51140	Worker's Comp Insurance	318	318	350	385	423
219	200	5-90-51180	51180	Misc employee cost	-	-	-	-	-
220	200	5-90-51080	51080	Contract Labor	8,160	8,160	8,976	9,874	10,861
221				Total Personnel Services	\$ 183,215	\$ 193,302	\$ 203,100	\$ 213,591	\$ 224,836
222									
223				Operating Expenses					
224	200	5-90-52010	52010	Office Supplies	\$ 1,260	\$ 1,293	\$ 1,327	\$ 1,362	\$ 1,397
225	200	5-90-52020	52020	Printing	-	-	-	-	-
226	200	5-90-52030	52030	Office Equip/Furniture/Fixtures	500	513	527	540	554
227	200	5-90-52031	52031	IT Equipment	4,000	4,105	4,213	4,323	4,436
228	200	5-90-52040	52040	Janitorial	-	-	-	-	-
229	200	5-90-52090	52090	Wearing Apparel	300	308	316	324	333
230	200	5-90-52160	52160	Miscellaneous Supplies	-	-	-	-	-
231	200	5-90-53010	53010	Building/Structures Repair	-	-	-	-	-
232	200	5-90-53020	53020	Office Equip Repair	1,000	1,026	1,053	1,081	1,109
233	200	5-90-54010	54010	Communications	-	-	-	-	-
234	200	5-90-54011	54011	Communications - UF	-	-	-	-	-
235	200	5-90-54030	54030	Software Costs & IT Support	4,073	4,180	4,289	4,402	4,517
236	200	5-90-54031	54031	Software Costs & IT Support -UF	28,954	17,463	17,921	18,390	18,872
237	200	5-90-54040	54040	Lease/Rental of Equipment	-	-	-	-	-
238	200	5-90-54050	54050	Insurance - Liab & Property	-	-	-	-	-
239	200	5-90-54095	54095	Credit Cd Merchant Fees	57,836	59,352	60,907	62,502	64,140
240	200	5-90-54130	54130	Training & Travel	1,265	1,298	1,332	1,367	1,403
241	200	5-90-54140	54140	Membership Dues	-	-	-	-	-
242	200	5-90-54160	54160	Billing & Collection	31,918	32,754	33,612	34,493	35,397
243	200	5-90-54161	54161	Web Payment Fees	30,151	30,941	31,752	32,584	33,437
244	200	5-90-54165	54165	Contract Services	4,000	4,105	4,212	4,323	4,436



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
245	200	5-90-54210	54210 Accounting & Auditing	13,460	13,813	14,175	14,546	14,927
246	200	5-90-54230	54230 Legal Services	-	-	-	-	-
247	200	5-90-54240	54240 Consulting Services	12,000	12,314	12,637	12,968	13,308
248	200	5-90-55400	55400 Bad Debt Expense	12,600	12,930	13,269	13,617	13,973
249	200	5-90-55450	55450 Cash Over/Short	-	-	-	-	-
250	200	5-90-56040	56040 Capital - Machinery & Equip	-	-	-	-	-
251	200	5-90-52011	52011 Postage	847	869	892	915	939
252			Total Operating Expenses	\$ 204,165	\$ 197,264	\$ 202,432	\$ 207,736	\$ 213,179
253								
254			TOTAL EXPENDITURES - BILLING	\$ 387,379	\$ 390,566	\$ 405,532	\$ 421,327	\$ 438,015
255								
256			Capital Improvement Plan					
257			Water Projects	\$ -	\$ -	\$ -	\$ -	\$ -
258			Wastewater Projects	-	-	-	-	-
259			Blackland Waterline	-	-	-	-	-
260			Capital Reserve (New)	1,125,355	1,490,000	1,590,000	1,690,000	1,790,000
261			TOTAL EXPENDITURES - CIP	\$ 1,125,355	\$ 1,490,000	\$ 1,590,000	\$ 1,690,000	\$ 1,790,000
262								
263			TOTAL REVENUE REQUIREMENT	\$ 8,950,701	\$ 8,753,648	\$ 9,105,813	\$ 10,033,674	\$ 10,817,164
264								
265			REVENUE OFFSETS					
266			Rate Revenues					
267	200	45201	Water Sales Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
268	200	45202	WW Collection & Treatment Fees	-	-	-	-	-
269			TOTAL RATE REVENUES	\$ -	\$ -	\$ -	\$ -	\$ -
270								
271			Non - Rate Revenues					
272	200	45125	Payment Processing Fees	\$ 87,987	\$ 87,987	\$ 87,987	\$ 87,987	\$ 87,987
273	200	45200	Transfer Fees	-	-	-	-	-
274	200	45205	New Connection Fees - Water	275,000	275,000	275,000	275,000	275,000
275	200	45206	New Connection Fees - Sewer	90,000	90,000	90,000	90,000	90,000
276	200	45215	Late Payment Penalty - Water	44,496	44,496	44,496	44,496	44,496
277	200	45216	Late Payment Penalty - Sewer	44,496	44,496	44,496	44,496	44,496
278	200	45220	Reconnection Fees - Water	25,956	25,956	25,956	25,956	25,956
279	200	45221	Reconnection Fees - Sewer	-	-	-	-	-



**Water and Wastewater Cost of Service and Rate Design Update
Five-Year Combined Revenue Requirement (FY 2019 - 2023)**

	Fund	Account	Description	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
280	200	45225	Re-Read Fees	-	-	-	-	-
281	200	45230	NSF Check Fees	2,091	2,091	2,091	2,091	2,091
282	200	45235	Other Water Fees	-	-	-	-	-
283	200	45236	Developer Contributions	-	-	-	-	-
284	200	45250	NTMWD Rebate	85,000	80,000	80,000	80,000	80,000
285	200	45251	NTMWD Rebate - Waste Water	-	-	-	-	-
286	200	46100	Investment Income	36,440	36,440	36,440	36,440	36,440
287	200	46120	Write-off Recovery	-	-	-	-	-
288	200	46120	Write-off Recovery	-	-	-	-	-
289	200	46125	Miscellaneous Income	1,000	1,000	1,000	1,000	1,000
290	200	46137	Developer Contribution - Water	-	-	-	-	-
291	200	46138	Developer Contribution - Sewer	-	-	-	-	-
292	200	47312	Transfers in from Sewer Impact	357,277	356,340	326,318	771,781	1,250,859
293	200	47422	Transfer in from Parker Creek Fund	189,312	180,000	211,413	219,675	229,243
294	200	27200	Transfers	-	-	-	-	-
295	200	47424	Transfer in from Water Capital Replacement	-	-	-	-	-
296	200	47425	Transfer in from Sewer Capital Replacement	622,000	-	-	-	-
297			TOTAL NON - RATE REVENUES	\$ 1,861,055	\$ 1,223,806	\$ 1,225,197	\$ 1,678,922	\$ 2,167,568
298								
299			Total Revenues	\$ 1,861,055	\$ 1,223,806	\$ 1,225,197	\$ 1,678,922	\$ 2,167,568
300								
301			NET REVENUE REQUIREMENT	\$ 7,089,646	\$ 7,529,841	\$ 7,880,615	\$ 8,354,751	\$ 8,649,595



**Water and Wastewater Cost of Service and Rate Design Update
Capital Improvement Plan**

			<u>CIP</u>				
		<u>Funding Source</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
			<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>
<u>Water Capital Improvement Plan</u>							
1	WoodCreek Tower Beautification	Reserve	\$ 105,000	\$ -	\$ -	\$ -	\$ -
2	Blackland 12 Inch Waterline	Impact Fees	-	-	850,000	-	-
3	Other Water Capital Projects	Reserve	-	100,000	100,000	100,000	100,000
4	AMI Register Modernization	Reserve	400,000				
5	Downtown Water Line Replacement	Reserve	416,900				
6	New Water Line/Capacity	Impact Fees		-	-	450,000	450,000
7	Total - Water Capital Projects		\$ 921,900	\$ 100,000	\$ 950,000	\$ 550,000	\$ 550,000
8							
9	<u>Funding Sources</u>						
10	Cash		\$ -	\$ -	\$ -	\$ -	\$ -
11	Debt		-	-	-	-	-
12	Impact Fees		-	-	850,000	450,000	450,000
13	Reserve		921,900	100,000	100,000	100,000	100,000
14	Total Funding - Water Capital Projects		\$ 921,900	\$ 100,000	\$ 950,000	\$ 550,000	\$ 550,000
15							
16							
17	<u>Wastewater Capital Improvement Plan</u>						
18	Downtown Sewer Rehab	Reserve	\$ 328,628	\$ -	\$ -	\$ -	\$ -
19	Sewer Line for Charter School	Impact Fees	2,730,000	-	-	-	-
20	Other Wastewater Capital Projects	Reserve	-	100,000	100,000	100,000	100,000
21	Sabine Creek WWTP	Reserve		134,888		(34,888)	100,000
22	Manhole Project	Reserve	622,000	-	-	-	-
23	Total - Wastewater Capital Projects		\$ 3,680,628	\$ 234,888	\$ 100,000	\$ 65,112	\$ 200,000
24							
25	<u>Funding Sources</u>						
26	Cash		\$ -	\$ -	\$ -	\$ -	\$ -
27	Debt		-	-	-	-	-
28	Impact Fees		2,730,000	-	-	-	-
29	Reserve		950,628	234,888	100,000	65,112	200,000
30	Total Funding - Wastewater Capital Projects		\$ 3,680,628	\$ 234,888	\$ 100,000	\$ 65,112	\$ 200,000



Water and Wastewater Cost of Service and Rate Design Update
Debt Service

EXISTING DEBT SERVICE (P&I)	Year 1 ¹ FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Series 2011 (7.29M)					
Annual Debt Service	\$ 497,725	\$ 499,525	\$ 500,925	\$ 496,925	\$ 497,438
% Water	100%				
% Wastewater	0%				
Series 2015 (3.75M)					
Annual Debt Service	\$ 240,225	\$ 240,750	\$ 240,725	\$ 240,550	\$ 244,688
% Water	94%				
% Wastewater	6%				
Total Existing Debt Service	\$ 737,950	\$ 740,275	\$ 741,650	\$ 737,475	\$ 742,126
Water	\$ 724,223	\$ 726,518	\$ 727,894	\$ 723,729	\$ 728,143
Wastewater	\$ 13,727	\$ 13,757	\$ 13,756	\$ 13,746	\$ 13,982
DEBT SERVICE FUNDING SOURCE					
Water Impact Fee Fund 311	\$ 497,725	\$ 499,525	\$ 500,925	\$ 496,925	\$ 497,438
Water Storage Tank Fund 421	214,841	240,750	240,725	240,550	244,688
Water and Sewer Project Fund 423	25,384	-	-	-	-
Utility Fund (Operations) Fund 200	-	-	-	-	-
Total Debt Service Funding	\$ 737,950	\$ 740,275	\$ 741,650	\$ 737,475	\$ 742,126

(1) Per Staff annual debt service schedules unchanged from FY 2016 Study data. Payments Updated for current periods.



Water and Wastewater Cost of Service and Rate Design Update
Water Revenue Realized Under Proposed Rates

Rate Adjustment 0.00% 0.00% 0.00% 0.00% 0.00%

Current Rates Test Year/ Year 1 FY 2019 Year 2 FY 2020 Year 3 FY 2021 Year 4 FY 2022 Year 5 FY 2023

Net Water Revenue Requirement \$ 4,479,887 \$ 4,474,396 \$ 4,792,045 \$ 5,068,245 \$ 5,294,157

Monthly Minimum Bill Based on Water Meter Size

Inside

Residential

5 / 8 inch	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32
3 / 4 inch	21.32	21.32	21.32	21.32	21.32	21.32	21.32
1 inch	53.29	53.29	53.29	53.29	53.29	53.29	53.29
1.5 inch	106.58	106.58	106.58	106.58	106.58	106.58	106.58
2 inch	170.53	170.53	170.53	170.53	170.53	170.53	170.53
3 inch	319.80	319.80	319.80	319.80	319.80	319.80	319.80
4 inch	533.00	533.00	533.00	533.00	533.00	533.00	533.00
6 inch	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00
8 inch	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60
10 inch	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80

Commercial

5 / 8 inch	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32	\$ 21.32
3 / 4 inch	21.32	21.32	21.32	21.32	21.32	21.32	21.32
1 inch	53.29	53.29	53.29	53.29	53.29	53.29	53.29
1.5 inch	106.58	106.58	106.58	106.58	106.58	106.58	106.58
2 inch	170.53	170.53	170.53	170.53	170.53	170.53	170.53
3 inch	319.80	319.80	319.80	319.80	319.80	319.80	319.80
4 inch	533.00	533.00	533.00	533.00	533.00	533.00	533.00
6 inch	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00	1,066.00
8 inch	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60	1,705.60
10 inch	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80	2,451.80

City - Using residential rates

Outside

Residential

5 / 8 inch	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65
3 / 4 inch	26.65	26.65	26.65	26.65	26.65	26.65	26.65
1 inch	66.61	66.61	66.61	66.61	66.61	66.61	66.61
1.5 inch	133.23	133.23	133.23	133.23	133.23	133.23	133.23
2 inch	213.16	213.16	213.16	213.16	213.16	213.16	213.16
3 inch	399.75	399.75	399.75	399.75	399.75	399.75	399.75
4 inch	666.25	666.25	666.25	666.25	666.25	666.25	666.25
6 inch	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50
8 inch	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00
10 inch	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75

Commercial

5 / 8 inch	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65	\$ 26.65
3 / 4 inch	26.65	26.65	26.65	26.65	26.65	26.65	26.65
1 inch	66.61	66.61	66.61	66.61	66.61	66.61	66.61
1.5 inch	133.23	133.23	133.23	133.23	133.23	133.23	133.23
2 inch	213.16	213.16	213.16	213.16	213.16	213.16	213.16
3 inch	399.75	399.75	399.75	399.75	399.75	399.75	399.75
4 inch	666.25	666.25	666.25	666.25	666.25	666.25	666.25
6 inch	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50	1,332.50
8 inch	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00	2,132.00
10 inch	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75	3,064.75



Water and Wastewater Cost of Service and Rate Design Update
Water Revenue Realized Under Proposed Rates

	Rate Adjustment				
	0.00%	0.00%	0.00%	0.00%	0.00%
Current Rates	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Minimum Bill Annual Revenue					
Inside					
Residential					
5 / 8 inch	\$ 938,933	\$ 1,028,221	\$ 1,100,112	\$ 1,166,119	\$ 1,224,450
3 / 4 inch	282,192	309,055	330,801	350,757	368,410
1 inch	1,918	1,918	1,918	1,918	1,918
1.5 inch	1,279	1,279	1,279	1,279	1,279
2 inch	-	-	-	-	-
Total Annual Revenue	\$ 1,224,322	\$ 1,340,473	\$ 1,434,111	\$ 1,520,073	\$ 1,596,057
Commercial					
5 / 8 inch	\$ 11,513	\$ 12,536	\$ 13,304	\$ 14,071	\$ 14,839
3 / 4 inch	3,326	3,582	3,838	4,093	4,349
1 inch	22,382	24,300	26,219	27,498	28,777
1.5 inch	16,626	17,905	19,184	20,463	21,742
2 inch	110,503	120,735	128,921	137,106	143,245
3 inch	11,513	11,513	11,513	11,513	11,513
Total Annual Revenue	\$ 175,863	\$ 190,572	\$ 202,978	\$ 214,745	\$ 224,465
City - Using residential rates					
Outside					
Residential					
5 / 8 inch	\$ 7,995	\$ 7,995	\$ 7,995	\$ 7,995	\$ 7,995
3 / 4 inch	27,183	27,183	27,183	27,183	27,183
1 inch	799	799	799	799	799
Total Annual Revenue	\$ 35,977	\$ 35,977	\$ 35,977	\$ 35,977	\$ 35,977
Commercial					
5 / 8 inch	\$ 320	\$ 320	\$ 320	\$ 320	\$ 320
Total Annual Revenue	\$ 320	\$ 320	\$ 320	\$ 320	\$ 320
Total Minimum Bill Revenue	\$ 1,452,853	\$ 1,583,713	\$ 1,689,757	\$ 1,787,486	\$ 1,873,190



Water and Wastewater Cost of Service and Rate Design Update
Water Revenue Realized Under Proposed Rates

Rate Adjustment 0.00% 0.00% 0.00% 0.00% 0.00%

	Current Rates	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Volumetric Rates						
<i>per 1,000 gallons</i>						
Inside						
Residential						
0 - 5,000	\$ 4.90	\$ 4.90	\$ 4.90	\$ 4.90	\$ 4.90	\$ 4.90
5,001 - 10,000	6.62	6.62	6.62	6.62	6.62	6.62
10,001 - 100,000	8.93	8.93	8.93	8.93	8.93	8.93
100,000+	12.51	12.51	12.51	12.51	12.51	12.51
Commercial						
0 - 5,000	\$ 5.14	\$ 5.14	\$ 5.14	\$ 5.14	\$ 5.14	\$ 5.14
5,001 - 10,000	6.94	6.94	6.94	6.94	6.94	6.94
10,001 - 100,000	9.37	9.37	9.37	9.37	9.37	9.37
100,000+	12.65	12.65	12.65	12.65	12.65	12.65
Outside						
Residential						
0 - 5,000	\$ 6.13	\$ 6.13	\$ 6.13	\$ 6.13	\$ 6.13	\$ 6.13
5,001 - 10,000	8.28	8.28	8.28	8.28	8.28	8.28
10,001 - 100,000	11.16	11.16	11.16	11.16	11.16	11.16
100,000+	15.64	15.64	15.64	15.64	15.64	15.64
Commercial						
0 - 5,000	\$ 6.43	\$ 6.43	\$ 6.43	\$ 6.43	\$ 6.43	\$ 6.43
5,001 - 10,000	8.68	8.68	8.68	8.68	8.68	8.68
10,001 - 100,000	11.71	11.71	11.71	11.71	11.71	11.71
100,000+	15.81	15.81	15.81	15.81	15.81	15.81
Volumetric Revenues						
Inside						
Residential						
0 - 5,000	\$ 1,041,391	\$ 1,140,364	\$ 1,220,152	\$ 1,293,401	\$ 1,358,147	
5,001 - 10,000	539,890	591,200	632,565	670,540	704,106	
10,001 - 100,000	429,699	470,537	503,459	533,683	560,398	
100,000+	2,976	3,258	3,486	3,696	3,881	
Total Annual Revenue	\$ 2,013,955	\$ 2,205,359	\$ 2,359,663	\$ 2,501,318	\$ 2,626,532	
Commercial						
0 - 5,000	\$ 26,207	\$ 28,458	\$ 30,387	\$ 32,156	\$ 33,763	
5,001 - 10,000	24,399	26,495	28,291	29,938	31,434	
10,001 - 100,000	283,017	307,326	328,161	347,261	364,624	
100,000+	610,301	662,720	707,650	748,836	786,277	
Total Annual Revenue	\$ 943,925	\$ 1,024,998	\$ 1,094,489	\$ 1,158,190	\$ 1,216,099	
Outside						
Residential						
0 - 5,000	\$ 30,741	\$ 30,741	\$ 30,741	\$ 30,741	\$ 30,741	
5,001 - 10,000	12,474	12,474	12,474	12,474	12,474	
10,001 - 100,000	7,962	7,962	7,962	7,962	7,962	
100,000+	-	-	-	-	-	
Total Annual Revenue	\$ 51,177	\$ 51,177	\$ 51,177	\$ 51,177	\$ 51,177	
Commercial						
0 - 5,000	\$ 116	\$ 116	\$ 116	\$ 116	\$ 116	
5,001 - 10,000	16	16	16	16	16	
10,001 - 100,000	-	-	-	-	-	
100,000+	-	-	-	-	-	
Total Annual Revenue	\$ 131	\$ 131	\$ 131	\$ 131	\$ 131	
Total Volumetric Revenue	\$ 3,009,188	\$ 3,281,665	\$ 3,505,460	\$ 3,710,816	\$ 3,893,939	
Total Water Revenue from Proposed Rates	\$ 4,462,041	\$ 4,865,378	\$ 5,195,216	\$ 5,498,301	\$ 5,767,129	
Net Revenue Requirement	\$ 4,479,887	\$ 4,474,396	\$ 4,792,045	\$ 5,068,245	\$ 5,294,157	
Over / (Under) Recovery	\$ (17,846)	\$ 390,981	\$ 403,171	\$ 430,056	\$ 472,972	
Cumulative Over / (Under) Recovery	\$ (17,846)	\$ 373,136	\$ 776,307	\$ 1,206,363	\$ 1,679,336	



Water and Wastewater Cost of Service and Rate Design Update
Wastewater Revenue Realized Under Proposed Rates

Rate Adjustment	0.00%	0.00%	0.00%	0.00%	0.00%
Current Rates	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Net Wastewater Revenue Requirement	\$ 2,609,759	\$ 3,055,445	\$ 3,088,570	\$ 3,286,506	\$ 3,355,439

Monthly Minimum Bill Based on Water Meter Size

Inside

Residential

5 / 8 inch	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80
3 / 4 inch	33.80	33.80	33.80	33.80	33.80	33.80
1 inch	81.49	81.49	81.49	81.49	81.49	81.49
1.5 inch	162.98	162.98	162.98	162.98	162.98	162.98
2 inch	260.77	260.77	260.77	260.77	260.77	260.77
3 inch	488.94	488.94	488.94	488.94	488.94	488.94
4 inch	814.89	814.89	814.89	814.89	814.89	814.89
6 inch	1,629.79	1,629.79	1,629.79	1,629.79	1,629.79	1,629.79
8 inch	2,607.66	2,607.66	2,607.66	2,607.66	2,607.66	2,607.66
10 inch	3,747.96	3,747.96	3,747.96	3,747.96	3,747.96	3,747.96

Commercial

5 / 8 inch	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80	\$ 33.80
3 / 4 inch	33.80	33.80	33.80	33.80	33.80	33.80
1 inch	81.49	81.49	81.49	81.49	81.49	81.49
1.5 inch	162.98	162.98	162.98	162.98	162.98	162.98
2 inch	260.77	260.77	260.77	260.77	260.77	260.77
3 inch	488.94	488.94	488.94	488.94	488.94	488.94
4 inch	814.89	814.89	814.89	814.89	814.89	814.89
6 inch	1,629.79	1,629.79	1,629.79	1,629.79	1,629.79	1,629.79
8 inch	2,607.66	2,607.66	2,607.66	2,607.66	2,607.66	2,607.66
10 inch	3,747.96	3,747.96	3,747.96	3,747.96	3,747.96	3,747.96

City - Using residential rates

Outside

Residential

5 / 8 inch	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25
3 / 4 inch	42.25	42.25	42.25	42.25	42.25	42.25
1 inch	101.86	101.86	101.86	101.86	101.86	101.86
1.5 inch	203.73	203.73	203.73	203.73	203.73	203.73
2 inch	325.96	325.96	325.96	325.96	325.96	325.96
3 inch	611.18	611.18	611.18	611.18	611.18	611.18
4 inch	1,018.61	1,018.61	1,018.61	1,018.61	1,018.61	1,018.61
6 inch	2,037.24	2,037.24	2,037.24	2,037.24	2,037.24	2,037.24
8 inch	3,259.58	3,259.58	3,259.58	3,259.58	3,259.58	3,259.58
10 inch	4,684.95	4,684.95	4,684.95	4,684.95	4,684.95	4,684.95

Commercial

5 / 8 inch	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25	\$ 42.25
3 / 4 inch	42.25	42.25	42.25	42.25	42.25	42.25
1 inch	101.86	101.86	101.86	101.86	101.86	101.86
1.5 inch	203.73	203.73	203.73	203.73	203.73	203.73
2 inch	325.96	325.96	325.96	325.96	325.96	325.96
3 inch	611.18	611.18	611.18	611.18	611.18	611.18
4 inch	1,018.61	1,018.61	1,018.61	1,018.61	1,018.61	1,018.61
6 inch	2,037.24	2,037.24	2,037.24	2,037.24	2,037.24	2,037.24
8 inch	3,259.58	3,259.58	3,259.58	3,259.58	3,259.58	3,259.58
10 inch	4,684.95	4,684.95	4,684.95	4,684.95	4,684.95	4,684.95

Minimum Bill Annual Revenue

Inside

Residential



Water and Wastewater Cost of Service and Rate Design Update
Wastewater Revenue Realized Under Proposed Rates

Rate Adjustment		0.00%	0.00%	0.00%	0.00%	0.00%	
Current Rates	Test Year/ Year 1	Year 2		Year 3	Year 4		Year 5
	FY 2019	FY 2020		FY 2021	FY 2022		FY 2023
5 / 8 inch	\$ 1,160,422	\$ 1,270,745	\$ 1,359,571	\$ 1,441,097	\$ 1,513,294		
3 / 4 inch	419,390	459,139	491,182	520,790	546,749		
Total Annual Revenue	\$ 1,579,812	\$ 1,729,884	\$ 1,850,753	\$ 1,961,887	\$ 2,060,042		
Commercial							
5 / 8 inch	\$ 6,490	\$ 7,301	\$ 7,706	\$ 8,112	\$ 8,518		
3 / 4 inch	811	811	811	811	811		
1 inch	5,867	6,845	6,845	6,845	6,845		
1.5 inch	1,956	1,956	1,956	1,956	1,956		
2 inch	21,905	25,034	28,163	31,292	34,422		
3 inch	17,602	17,602	17,602	17,602	17,602		
Total Annual Revenue	\$ 54,630	\$ 59,549	\$ 63,084	\$ 66,618	\$ 70,153		
City							
5 / 8 inch	\$ 1,217	\$ 1,217	\$ 1,217	\$ 1,217	\$ 1,217		
3 / 4 inch	-	-	-	-	-		
1 inch	-	-	-	-	-		
1.5 inch	1,956	1,956	1,956	1,956	1,956		
2 inch	3,129	3,129	3,129	3,129	3,129		
3 inch	5,867	5,867	5,867	5,867	5,867		
Total Annual Revenue	\$ 12,169	\$ 12,169	\$ 12,169	\$ 12,169	\$ 12,169		
Outside							
Residential							
5 / 8 inch	\$ 1,521	\$ 1,521	\$ 1,521	\$ 1,521	\$ 1,521		
3 / 4 inch	1,521	1,521	1,521	1,521	1,521		
Total Annual Revenue	\$ 3,042	\$ 3,042	\$ 3,042	\$ 3,042	\$ 3,042		
Total Minimum Bill Revenue	\$ 1,649,653	\$ 1,804,644	\$ 1,929,047	\$ 2,043,717	\$ 2,145,407		
Volumetric Rates							
<i>per 1,000 gallons</i>							
Inside							
Residential	\$ 4.71	\$ 4.71	\$ 4.71	\$ 4.71	\$ 4.71		
Commercial	\$ 4.71	\$ 4.71	\$ 4.71	\$ 4.71	\$ 4.71		
Outside							
Residential	\$ 5.89	\$ 5.89	\$ 5.89	\$ 5.89	\$ 5.89		
Commercial	\$ 5.89	\$ 5.89	\$ 5.89	\$ 5.89	\$ 5.89		



Water and Wastewater Cost of Service and Rate Design Update
Wastewater Revenue Realized Under Proposed Rates

	Rate Adjustment				
	0.00%	0.00%	0.00%	0.00%	0.00%
Current Rates	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Volumetric Annual Revenue					
Inside					
Residential					
Total	\$ 1,010,068	\$ 1,106,018	\$ 1,183,297	\$ 1,254,351	\$ 1,317,108
Commercial					
Total	\$ 13,488	\$ 15,029	\$ 15,800	\$ 16,571	\$ 17,341
Outside					
Residential					
Total	\$ -	\$ -	\$ -	\$ -	\$ -
Total Volumetric Revenue	\$ 1,023,556	\$ 1,121,047	\$ 1,199,096	\$ 1,270,922	\$ 1,334,449
Total Wastewater Revenue from Proposed Rates	\$ 2,673,209	\$ 2,925,691	\$ 3,128,144	\$ 3,314,639	\$ 3,479,856
Net Revenue Requirement	\$ 2,609,759	\$ 3,055,445	\$ 3,088,570	\$ 3,286,506	\$ 3,355,439
Over / (Under) Recovery	\$ 63,450	\$ (129,754)	\$ 39,574	\$ 28,132	\$ 124,417
Cumulative Over / (Under) Recovery	\$ 63,450	\$ (66,304)	\$ (26,730)	\$ 1,402	\$ 125,819



Water and Wastewater Cost of Service and Rate Design Update
Schedule of Capital Reserve Balance

Capital Reserve Cashflow

	Test Year/ Year 1 FY 2019	Year 2 FY 2020	Year 3 FY 2021	Year 4 FY 2022	Year 5 FY 2023
Water - Fund 424¹					
Beginning Balance	\$ 174,365	\$ -	\$ 476,000	\$ 1,002,000	\$ 1,578,000
Total Transfers In	747,535	576,000	626,000	676,000	726,000
Transfers Out					
Cash CIP	921,900	100,000	100,000	100,000	100,000
Total Transfers Out	921,900	100,000	100,000	100,000	100,000
Ending Balance	\$ -	\$ 476,000	\$ 1,002,000	\$ 1,578,000	\$ 2,204,000
Wastewater - Fund 425²					
Beginning Balance	\$ 595,008	\$ 22,200	\$ 701,312	\$ 1,565,312	\$ 2,514,200
Total Transfers In	377,820	914,000	964,000	1,014,000	1,064,000
Transfers Out					
Cash CIP	950,628	234,888	100,000	65,112	200,000
Total Transfers Out	950,628	234,888	100,000	65,112	200,000
Ending Balance	\$ 22,200	\$ 701,312	\$ 1,565,312	\$ 2,514,200	\$ 3,378,200

Notes:

- 1) Projected Funds Available as 5/21/18
- 2) Projected Funds Available as 5/21/18



Water and Wastewater Cost of Service and Rate Design Update
Fund Balance Summary

	Year 1	Year 2	Year 3	Year 4	Year 5
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Proposed Rates					
Proposed Water Rate Increases	0.00%	0.00%	0.00%	0.00%	0.00%
Water					
Rate Revenues	\$ 4,462,041	\$ 4,865,378	\$ 5,195,216	\$ 5,498,301	\$ 5,767,129
Transfers In (impact fees and capital reserve)	-	-	-	-	-
Other Non-Rate Revenues	503,605	498,605	498,605	498,605	498,605
Water Revenues¹	\$ 4,965,646	\$ 5,363,982	\$ 5,693,821	\$ 5,996,906	\$ 6,265,734
Water Revenue Requirement²	\$ 4,983,491	\$ 4,973,001	\$ 5,290,650	\$ 5,566,850	\$ 5,792,761
Water Over/(Under) Recovery	(\$17,846)	\$390,981	\$403,171	\$430,056	\$472,972
Water Revenue Requirement Less:					
Cash Capital Outlay	747,535	576,000	626,000	676,000	726,000
Transfer to General Fund	584,088	589,513	622,644	657,636	694,595
Net Water Operating Expenses	\$ 3,651,868	\$ 3,807,488	\$ 4,042,006	\$ 4,233,213	\$ 4,372,166
<i>Net Available Water Revenues for DSC</i>	<i>\$ 1,313,777</i>	<i>\$ 1,556,494</i>	<i>\$ 1,651,815</i>	<i>\$ 1,763,692</i>	<i>\$ 1,893,568</i>
<i>excludes transfers in from impact fees and capital reserve</i>					
Proposed Wastewater Rate Increases	0.00%	0.00%	0.00%	0.00%	0.00%
Wastewater					
Rate Revenues	\$ 2,673,209	\$ 2,925,691	\$ 3,128,144	\$ 3,314,639	\$ 3,479,856
Transfers In (impact fees and capital reserve)	1,168,589	536,340	537,731	991,456	1,480,102
Other Non-Rate Revenues	188,862	188,862	188,862	188,862	188,862
Wastewater Revenues¹	\$ 4,030,660	\$ 3,650,893	\$ 3,854,737	\$ 4,494,956	\$ 5,148,820
Wastewater Revenue Requirement	\$ 3,967,210	\$ 3,780,647	\$ 3,815,163	\$ 4,466,824	\$ 5,024,403
Wastewater Over/(Under) Recovery	\$ 63,450	(\$129,754)	\$39,574	\$28,132	\$124,417
Wastewater Revenue Requirement Less:					
Cash Capital Outlay	377,820	914,000	964,000	1,014,000	1,064,000
Transfer to General Fund	378,549	382,065	403,537	426,216	450,169
Net Wastewater Operating Expenses	\$ 3,210,841	\$ 2,484,581	\$ 2,447,626	\$ 3,026,608	\$ 3,510,233
<i>Net Available Wastewater Revenues for DSC</i>	<i>\$ (348,770)</i>	<i>\$ 629,971</i>	<i>\$ 869,380</i>	<i>\$ 476,892</i>	<i>\$ 158,484</i>
<i>excludes transfers in from impact fees and capital reserve</i>					
Combined Utility Performance					
Rate Revenues	\$ 7,135,250	\$ 7,791,069	\$ 8,323,360	\$ 8,812,940	\$ 9,246,985
Transfers In (impact fees and capital reserve)	\$ 1,168,589	\$ 536,340	\$ 537,731	\$ 991,456	\$ 1,480,102
Other Non-Rate Revenues	692,466	687,466	687,466	687,466	687,466
Combined Revenues¹	\$ 8,996,305	\$ 9,014,875	\$ 9,548,557	\$ 10,491,862	\$ 11,414,553
Combined Revenue Requirement	\$ 8,950,701	\$ 8,753,648	\$ 9,105,813	\$ 10,033,674	\$ 10,817,164
Combined Over/(Under) Recovery	\$45,604	\$ 261,227	\$442,745	\$458,189	\$597,390
Combined Revenue Requirement Less:					
Cash Capital Outlay	1,125,355	1,490,000	1,590,000	1,690,000	1,790,000
Transfer to General Fund	962,637	971,578	1,026,181	1,083,852	1,144,765
Net Combined Operating Expenses	\$ 6,862,709	\$ 6,292,070	\$ 6,489,632	\$ 7,259,822	\$ 7,882,399
<i>Net Available Combined Revenues for DSC</i>	<i>\$ 965,007</i>	<i>\$ 2,186,465</i>	<i>\$ 2,521,195</i>	<i>\$ 2,240,585</i>	<i>\$ 2,052,052</i>
<i>excludes transfers in from impact fees and capital reserve</i>					

NOTES:

- (1) Includes rate and non-rate revenues
- (2) Does not include depreciation.
- (3) Days Operating Reserve = Ending Balance / (O&M without CCO & Transfers)/365



Water and Wastewater Cost of Service and Rate Design Update
Fund Balance Summary

	Year 1	Year 2	Year 3	Year 4	Year 5
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Proposed Rates					
Combined Utility Performance					
Debt Service Coverage					
Total Available Revenues for Debt Service Coverage	\$ 965,007	\$ 2,186,465	\$ 2,521,195	\$ 2,240,585	\$ 2,052,052
Annual Debt Service	737,950	740,275	741,650	737,475	742,126
Times Coverage	1.31	2.95	3.40	3.04	2.77
Target Debt Service Coverage Ratio	1.10	1.10	1.10	1.10	1.10
Operating Reserve					
Beginning Balance	\$ 3,940,182	\$ 3,985,786	\$ 4,247,014	\$ 4,689,759	\$ 5,147,947
Total Revenues ¹	8,996,305	9,014,875	9,548,557	10,491,862	11,414,553
Total Expenses ²	(8,950,701)	(8,753,648)	(9,105,813)	(10,033,674)	(10,817,164)
Combined Over/(Under) Recovery	45,604	261,227	442,745	458,189	597,390
Ending Balance	3,985,786	4,247,014	4,689,759	5,147,947	5,745,337
Total Revenue Requirement ²	\$ 8,950,701	\$ 8,753,648	\$ 9,105,813	\$ 10,033,674	\$ 10,817,164
Less:					
Cash Capital Outlay (CCO)	1,125,355	1,490,000	1,590,000	1,690,000	1,790,000
Transfers Out	962,637	971,578	1,026,181	1,083,852	1,144,765
O&M (without CCO & Transfers)	\$ 6,862,709	\$ 6,292,070	\$ 6,489,632	\$ 7,259,822	\$ 7,882,399
Days Operating Reserve ³	212	246	264	259	266
Target Days Operating Reserve	120	120	120	120	120
Days Total Reserve of Total Revenue Requirement	163	177	188	187	194

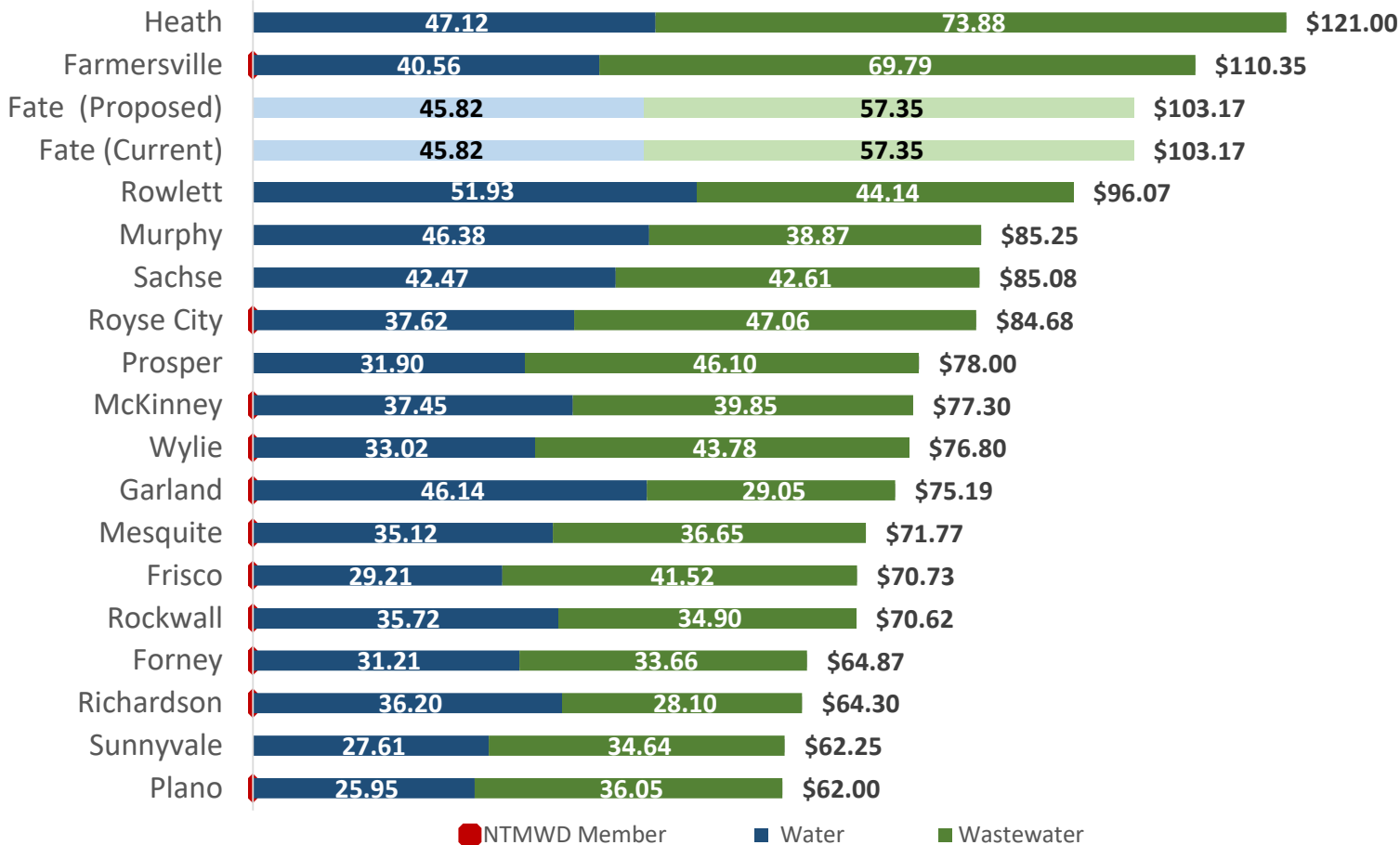
NOTES:

- (1) Includes rate and non-rate revenues
- (2) Does not include depreciation.
- (3) Days Operating Reserve = Ending Balance / (O&M without CCO & Transfers)/365



Water and Wastewater Cost of Service and Rate Design Update

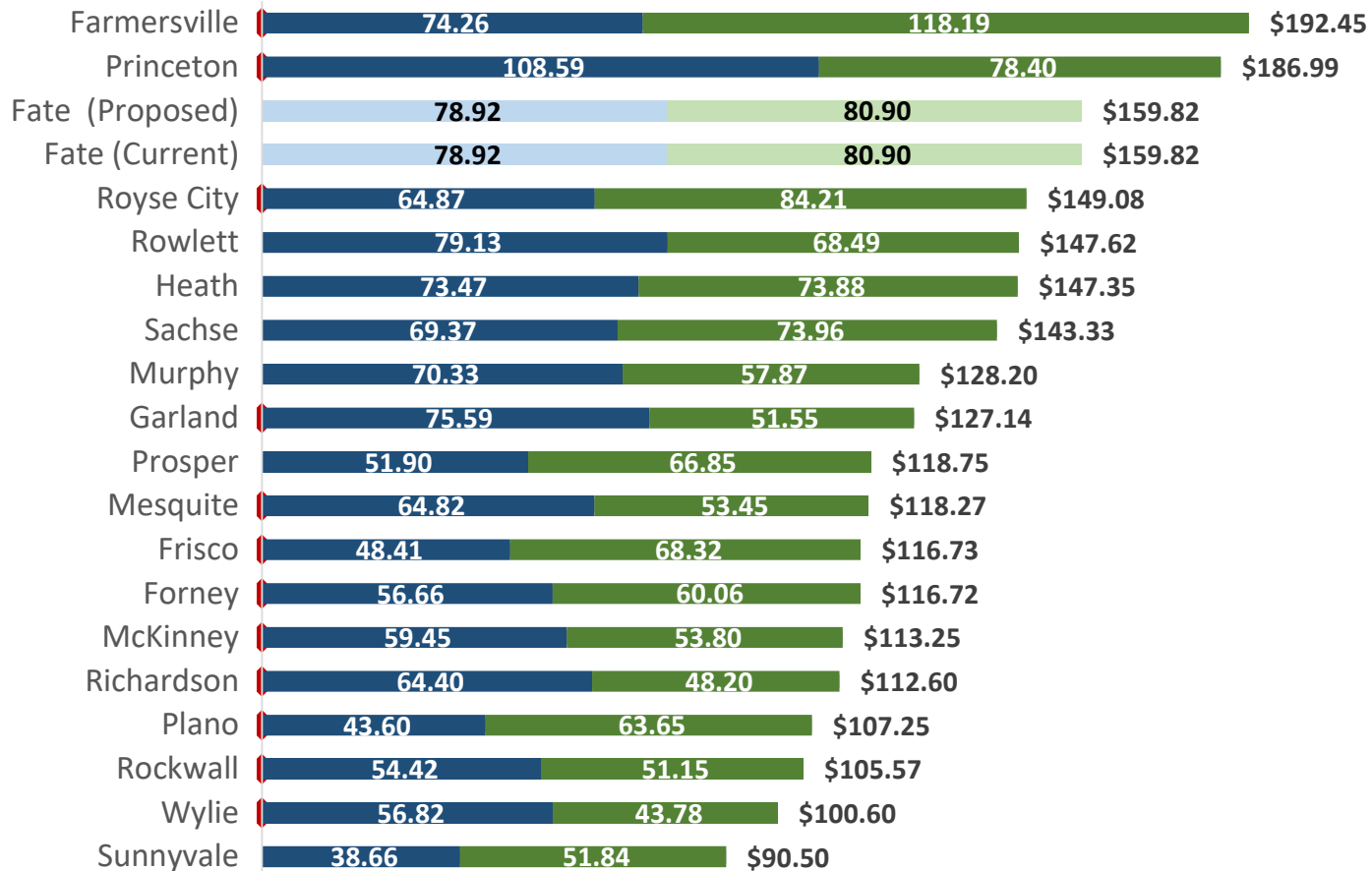
Regional Bill Comparison - Fate
Residential Monthly Bill for 5,000 gallons





Water and Wastewater Cost of Service and Rate Design Update

Regional Bill Comparison - Fate
Residential Monthly Bill for 10,000 Gallons



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