



City of Tempe, AZ

Water and Sewer Rate Study

Final Report

December 13, 2017

December 13, 2017

Mr. Steve White
Public Works Planning & Research Analyst
20 E 6th St, Tempe
Tempe, AZ. 85281

Re: Final Report –Water, Sewer and Flood Irrigation Rate Study

Dear Mr. White,

Stantec Consulting Services Inc. is pleased to present this Final Report of the Water, Sewer and Flood Irrigation Rate Study (Study) that we performed for the City of Tempe, Arizona (City). We appreciate the fine assistance provided by you and all of the members of the City staff who participated in this Study.

If you or others at the City have any questions, please do not hesitate to call me at (813) 204-3331 or email me at Andrew.Burnham@stantec.com. We appreciate the opportunity to be of service to the City and look forward to working with you again in the near future.

Sincerely,



Andrew J. Burnham

Vice President

Enclosure



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SECTION 1. EXECUTIVE SUMMARY

E.1 Background & Objectives

The City of Tempe, Arizona (City) provides water and sewer service to approximately 43,000 customer accounts. The costs for providing these services are accounted for within a standalone enterprise fund and are funded through rates, fees, and charges paid by customers for services rendered. The City's practice is to conduct periodic studies to ensure its utility rates, fees, and charges recover the cost of providing service, reflect a fair and equitable distribution of costs, and conform to local and industry practices.

As such, the principal objectives of this rate Study were as follows:

Revenue Sufficiency Analysis – Conduct a revenue sufficiency analysis by developing and populating multi-year forecasting models for the City's water and sewer systems to determine the level of annual revenue required to satisfy each system's projected annual operating, debt service, and capital cost requirements as well as maintain adequate reserves levels.

Cost of Service Allocations – Complete cost of service allocations by reviewing test year revenue requirements, assessing billing determinants, allocating revenue requirements to functional categories, and identifying customer class responsibilities for the costs of each category based upon the appropriate usage characteristics of each class.

Rate Structure Analysis – Review the City's existing rate structure and develop modifications, as appropriate, to ensure that the City's rates conform to accepted industry practices and reflect the appropriate distribution of system costs, while achieving its policy objectives such as fiscal stability, equity, and affordability.

E.2 Revenue Sufficiency Analysis

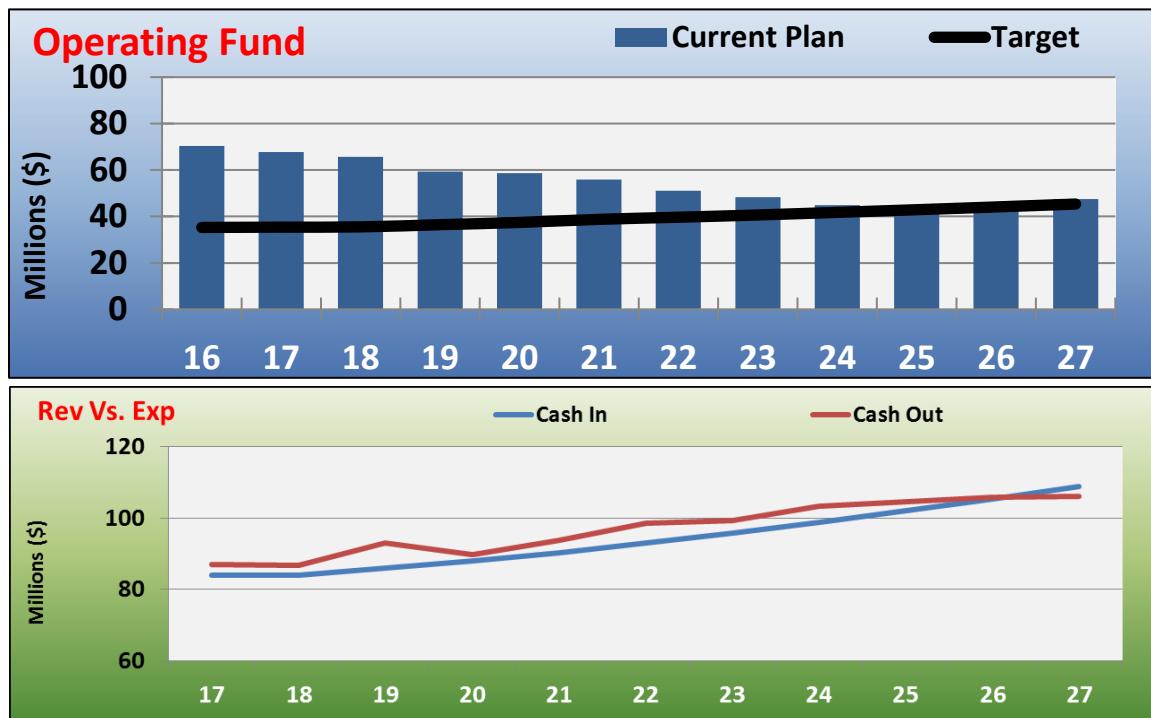
This analysis evaluated the sufficiency of the City's revenues to meet all of its current and projected financial requirements over a ten-year projection period and determined the level of rate revenue increases necessary in each year of the projection period to provide sufficient revenues to fund all of the City's revenue requirements. The process included a review of the base budget and expenditure data and assumptions supporting the analysis, as well as the evaluation of several alternative scenarios for its water and sewer systems. Through this process, we developed the financial management plans and associated plans of respective

annual water and sewer rate revenue increases presented herein to address the current and projected cost requirements of the City.

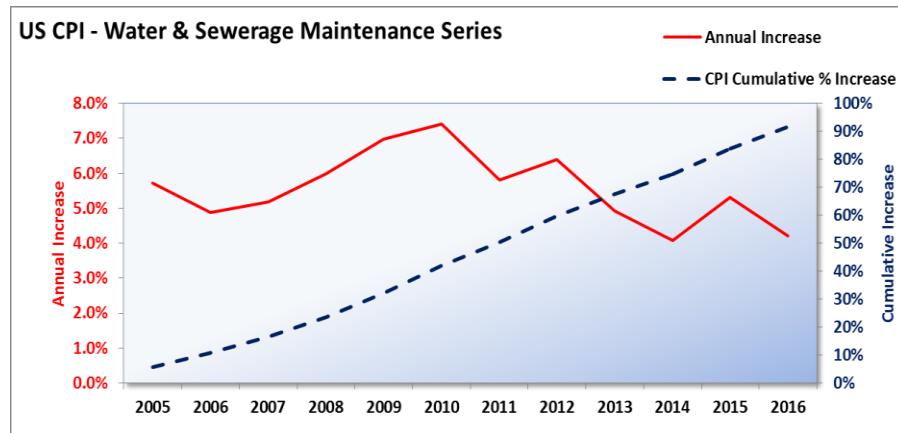
Upon initializing the Study, we worked with City staff to develop a sustainable financial management plan for the combined water and sewer systems that utilized existing cash balances above minimum reserve policy levels for capital funding while avoiding future rate spikes associated with the draw-down of existing reserve balances. Table E-1 on the following page shows the projected amount of end of year reserve balances against the City's current policy target and corresponding projection of annual revenue and expenses.

As indicated, a key objective of the Study was to draw down reserves in a sustainable manner so as to avoid large rate spikes in the future upon the full utilization of surplus balances, which are a non-recurring source of revenues. As can be seen from Table E-1, the financial management plan presented herein utilizes surplus reserve balances over the projection period while managing the revenues of the combined utility system via a plan of level inflationary-like rate indexing adjustments. This is done so that annual revenues can be gradually brought in line with projected annual expenditure requirements.

Table E-1: Projected End of Year Reserves & Annual Cash Flows



The level of projected rate adjustments for the combined utility is significantly less than the average annual change in the US CPI – Water & Sewerage Maintenance Series of approximately 5% per year. The US CPI – Water & Sewerage Maintenance Series is one of more than 200 item categories that make up the Consumer Price Index (CPI) structure and is of particular relevance to water and sewer utilities. It serves as a measure of the true change in the cost of water and sewer service to urban consumers.



Many utility systems will consider using an inflationary index such as the Water & Sewerage Maintenance Series as a basis for annual rate indexing adjustment policies. In this instance, we recommend that the City consider a plan of indexing adjustments equal to the lesser of the annual change in the US CPI W&S Maintenance index, or the level of respective water (4.25%) and sewer (0%) annual rate adjustment levels identified herein. It should be noted that our Study indicated that the annual sewer rate increases would not need to begin until FY 2021. Given the City's proactive financial management practices and performance of bi-annual rate studies, such a plan would provide a baseline mechanism to keep pace with inflation, changes in water use and infrastructure requirements that can be adjusted as required if future conditions are significantly different from current projections.

The five-year rate revenue adjustment plans for the water and sewer systems are presented in the following table. This table also presents the corresponding impacts to a typical single-family household with monthly water consumption averaging 10,000 gallons per month, volumetric billing for sewer service of 7,000 gallons per month and the recommended plan of solid waste rate adjustments.

Table E-2: Projected Monthly Utility Bills for a Residential User

Residential Combined Bill

	FY2017 (Current)	FY 2018 (1) (Proposed)	FY 2019	FY 2020	FY 2021	FY 2022
Water (10,000 GAL)	\$ 31.20	\$ 32.26	\$ 33.63	\$ 35.06	\$ 36.55	\$ 38.10
Sewer (7,000 GAL)	\$ 23.18	\$ 23.18	\$ 23.18	\$ 23.18	\$ 23.64	\$ 24.11
Sanitation (96 Gallon Container)	\$ 23.60	\$ 25.09	\$ 25.59	\$ 26.10	\$ 26.49	\$ 26.89
Total	\$ 77.98	\$ 80.53	\$ 82.40	\$ 84.34	\$ 86.68	\$ 89.10
\$ Change		\$ 2.55	\$ 1.87	\$ 1.94	\$ 2.34	\$ 2.42
% Change		3.27%	2.32%	2.35%	2.77%	2.79%

Rate Revenue Adjustment

Water	4.25%	4.25%	4.25%	4.25%	4.25%
Sewer	0.00%	0.00%	0.00%	2.00%	2.00%
Sanitation	2.00%	2.00%	2.00%	1.50%	1.50%

(1) Included proposed rate structure adjustments

E.3 Cost of Service Allocations

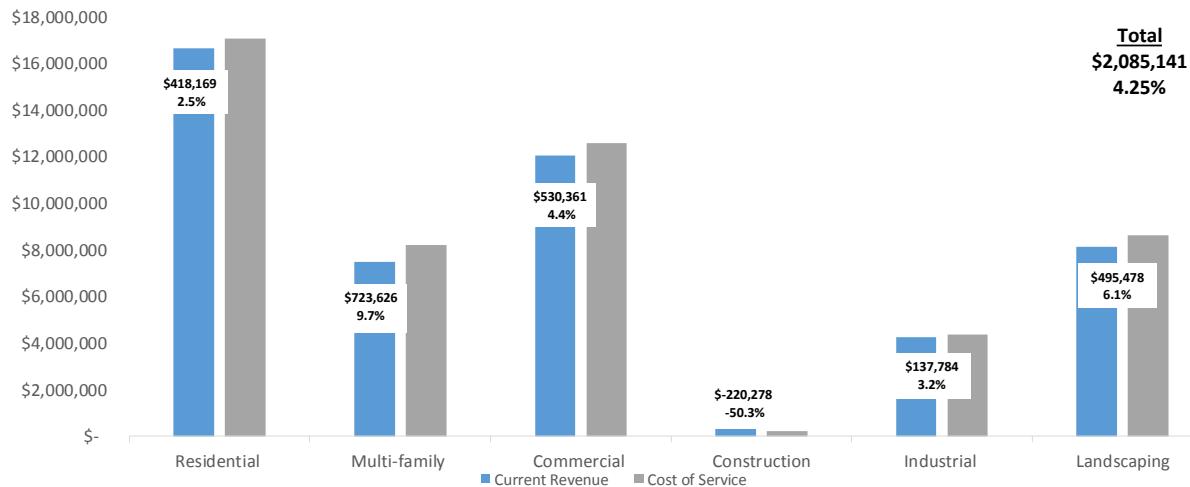
The purpose of a cost of service analysis (COSA) is to equitably distribute identified revenue requirements between the various types of customers served based upon accepted industry practices. Such practices are documented by water industry publications such as Manual M1: Principles of Water Rates, Fees, and Charges (M1), published by the American Water Works Association (AWWA). The cost of service analysis conducted in this Study follows well-accepted industry standard practices by:

- 1) Allocating costs to individual functions or activities (such as supply, treatment, transmission, meters/services, etc.). This step is often called “functionalization”, and it links costs with what utilities do to meet customer demands.
- 2) Allocating, or assigning the cost of each function, to the appropriate cost components (such as average use, maximum day demands, peak hour demands, customers, etc.). This links costs with the customer characteristics that drive costs.
- 3) Distributing the costs of each component to customer classes in accordance with the unique demand characteristics that each customer class places on the utility. This step recognizes that some of the units of service for customers are empirically determined based upon meter size or billed usage history, and some are based upon other data sources (such as peak hour demands and max day demands).

These steps focus on the water system, but similar steps are used to allocate costs for the City's sewer system. Sewer system costs tend to be driven by average daily sanitary system flows, wastewater strengths, and infiltration/inflow (I/I). As such, the key cost allocation considerations focus on differentiating between volume and strength related costs and aligning the allocation of sewer costs with indoor water usage to remove the impact of water consumption not associated with sanitary flows. This year's cost allocation analysis does not include a sewer analysis as staff is investigating options for obtaining local customer class specific wastewater loading factors that would be utilized in a future cost of service Study.

The results of the COSA for the water system are included in the table below. They confirm that the City's current rate structures are generally reflective of current cost of service requirements. As can be seen in Graphic E-3, there are some modest differences between the cost of service and current revenue recovery for certain customer classes. As such, while we are recommending rates that will result in an overall increase of revenue of 4.25% for water to meet the system's revenue requirements, the recommended rates presented herein are calculated based upon the respective cost of service allocation to each customer class. More specifically, the required overall system increases of 4.25% for water would be achieved through a variety of different adjustments on customer classes based on the cost allocations depicted below in Graphic E-3.

Graphic E-3: Water System Customer Class Revenue & Cost of Service Distribution



E.4 Rate Structure Modifications

Stantec examined the City's current water and sewer rates and developed recommended rate structure modifications that i) fairly and equitably recover the City's current cost of service and revenue requirements from each customer class, ii) conform to accepted national and local industry practices, and iii) promote water conservation through efficient usage.

Common industry practice is a two-part rate structure comprised of both fixed and variable charges. Generally accepted practice recovers a portion of the costs of the system in a fixed readiness-to-serve charge, recognizing that utilities have substantial investments in capacity-related costs and other year-round fixed costs to maintain a state of readiness to meet peak demands of their customers when they occur. Simply put, utilities incur these fixed costs regardless of the level of customer usage.

As it relates to the City's rates and charges, we recommend the following key actions:

1. Adjust the amount of water consumption in each tier of the current single family residential inclining block rate structure to more closely align with discretionary and non-discretionary usage profiles (see Figure E-5).
2. Implement a sewer billing cap or maximum of 12,000 gallons on wastewater winter averages to avoid application of wastewater charges on outdoor water use.
3. Continue to apply unique water usage rates to all metered volume for all other users based upon the respective cost requirements necessary to serve each customer class.

Table E-4 presents a summary of the monthly impacts to single-family residential customers at various levels of water use. These projections include the revenue requirement adjustments, customer class cost of service adjustments and rate structure modifications recommended herein. The table highlights that the typical residential user (10,000 gallons of water & 7,000 gallons of sewer service) would see a \$1.06 increase in their bill based upon the identified rate structure modifications.

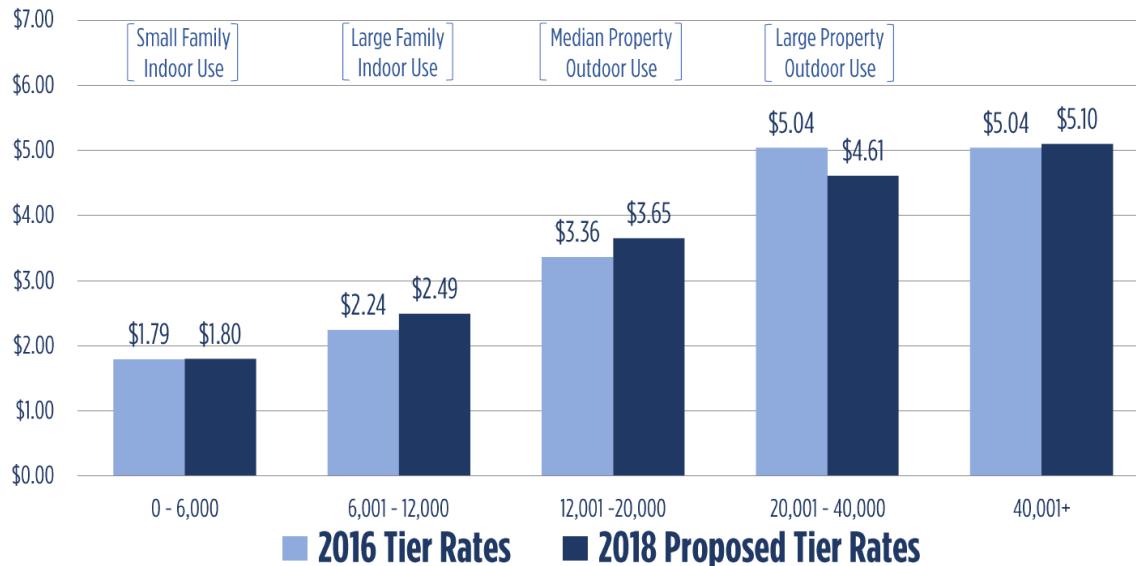
Table E-4: Single-Family Residential (SRF) Bill Comparisons

Residential 5/8" Meter Water & Sewer Bill Calculations				
Monthly Use (Gal)	Current	Proposed	\$ Chg	% Chg
	FY 17	FY 18		
0	\$21.80	\$21.80	\$0.00	0.0%
1,000	\$24.88	\$24.89	\$0.01	0.0%
2,000	\$27.96	\$27.98	\$0.02	0.1%
3,000	\$31.03	\$31.06	\$0.03	0.1%
4,000	\$34.11	\$34.15	\$0.04	0.1%
5,000	\$37.19	\$37.24	\$0.05	0.1%
6,000	\$40.27	\$40.33	\$0.06	0.1%
7,000	\$43.80	\$44.11	\$0.31	0.7%
8,000	\$47.32	\$47.88	\$0.56	1.2%
9,000	\$50.85	\$51.66	\$0.81	1.6%
10,000	\$54.38	\$55.44	\$1.06	1.9%
11,000	\$57.91	\$59.22	\$1.31	2.3%
12,000	\$61.44	\$63.00	\$1.56	2.5%
13,000	\$66.08	\$67.93	\$1.85	2.8%
14,000	\$70.73	\$72.87	\$2.14	3.0%
15,000	\$75.38	\$77.81	\$2.43	3.2%
16,000	\$80.03	\$82.75	\$2.72	3.4%
17,000	\$84.68	\$87.69	\$3.01	3.6%
18,000	\$89.32	\$91.52	\$2.20	2.5%
19,000	\$93.97	\$95.17	\$1.20	1.3%
20,000	\$98.62	\$98.82	\$0.20	0.2%
30,000	\$161.90	\$144.92	-\$16.98	-10.5%
40,000	\$225.18	\$191.02	-\$34.16	-15.2%
50,000	\$288.46	\$242.02	-\$46.44	-16.1%
60,000	\$351.74	\$293.02	-\$58.72	-16.7%
70,000	\$415.02	\$344.02	-\$71.00	-17.1%
80,000	\$478.30	\$395.02	-\$83.28	-17.4%
90,000	\$541.58	\$446.02	-\$95.56	-17.6%
100,000	\$604.86	\$497.02	-\$107.84	-17.8%

*Sewer charges are calculated based on 70% of winter average monthly water use, with a cap, or maximum, at 12,000 gallons.

Figure E-5: Summary of Current & Proposed Rates

Proposed SFR Rate Structure



	Current	Proposed	% Increase
Multifamily	\$2.22	\$2.51	13%
Commercial	\$2.46	\$2.59	5%
Construction	\$4.07	\$4.07	0%
Industrial	\$2.54	\$2.63	4%
Landscaping	\$3.28	\$3.51	7%

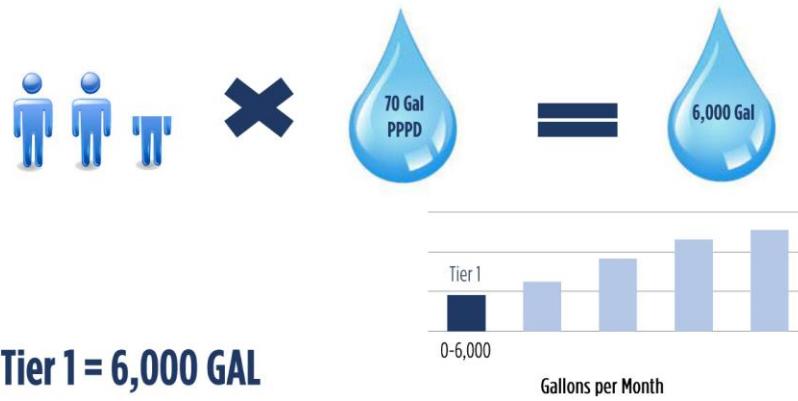
*The City has elected to maintain the current construction meter rate recognizing the substantial variability in construction meter usage that occurs from year to year, which causes fluctuations to the cost of service allocations to this customer class.

Graphic E-6 provides some background information related to the recommended changes in the City's inclining block water rate structure. The recommended volume of water use in each tier of the single-family residential inclining block rate structure was derived from this analysis to better align with typical discretionary and non-discretionary residential usage profiles and to distribute costs more equitably according to usage patterns.

Graphic E-6: Residential Usage Profile Supporting Recommended Tiers

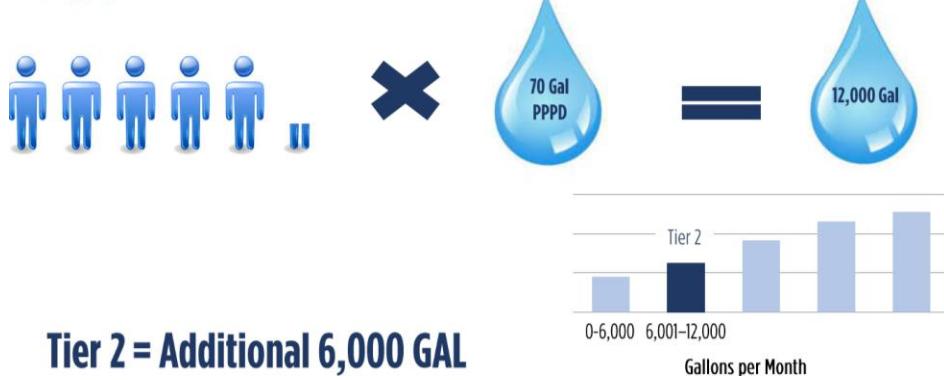
Monthly SFR Tier Sizing

● Tier 1

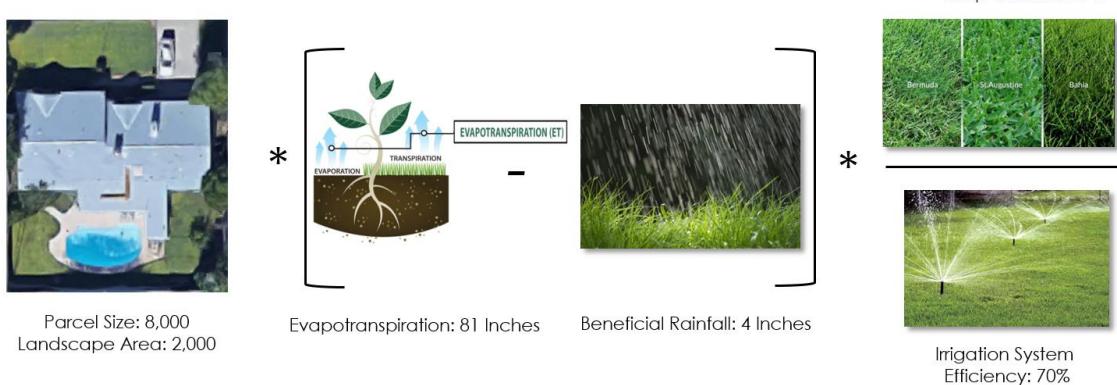


Monthly SFR Tier Sizing

● Tier 2

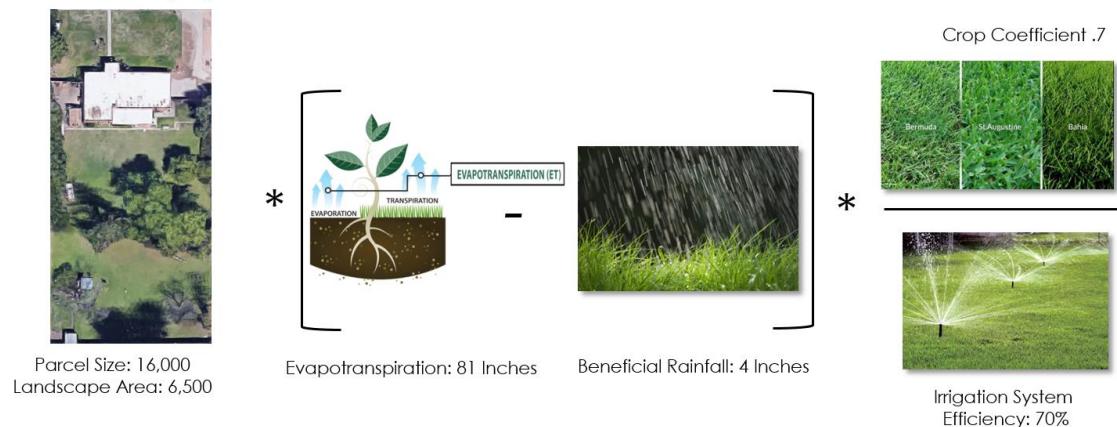


Irrigation Requirements for the Median Parcel (8,000 sqft) Tier 3



$$= 8,000 \text{ GAL}$$

Irrigation Requirements for a larger Parcel (16,000 sqft) Tier 4



$$= 28,000 \text{ GAL}$$

SECTION 2. INTRODUCTION

Stantec Consulting Services Inc. has conducted a comprehensive rate Study (Study) for the water and sewer systems of the City of Tempe (hereafter referred to as the "City" or "Utility"). This report presents the objectives, approach, methodologies, source data, assumptions, as well as the findings and recommendations of the Study.

2.1 Background

The City of Tempe, Arizona (City) provides water and sewer service to approximately 43,000 customer accounts. The costs for providing these services are accounted for within in a standalone enterprise fund and are funded through rates, fees, and charges paid by customers for services rendered. The City's practice is to conduct periodic studies to ensure its utility rates, fees, and charges recover the cost of providing service, reflect a fair and equitable distribution of costs, and conform to local and industry practices.

In FY 2015, Stantec Consulting Services Inc., formerly Burton & Associates, submitted a response to provide financial consulting services for the Utility in response to the City's request for proposals to retain a consultant to perform periodic comprehensive studies of its water, sewer, and solid waste rates, fees, and charges. Stantec was ultimately selected to provide such services, with that Study being a comprehensive analysis of the City's water and sewer rates. The City has been proactive in assessing its overall system, and as such, engaged with Stantec once again to conduct the FY 2017 Study to perform an update of the prior Study and address additional objectives.

2.2 Objectives

The principal objectives of this Study were as follows:

Revenue Sufficiency Analysis – Conduct a revenue sufficiency analysis by developing and populating multi-year forecasting models for the City's water and sewer systems to determine the level of annual revenue required to satisfy each system's projected annual operating, debt service, and capital cost requirements as well as maintain adequate reserves.

Cost of Service Allocations – Complete cost of service allocations by reviewing test year revenue requirements, assessing billing determinants, allocating revenue requirements to functional categories, and identifying customer class

responsibilities for the costs of each category based upon the system usage characteristics of each class.

Rate Structure Analysis – Review the City's existing rate structure and develop modifications, as appropriate, to ensure that the City's rates conform to accepted industry practice and reflect the appropriate distribution of system costs, while achieving its policy objectives, such as fiscal stability, equity, and affordability.

SECTION 3. REVENUE SUFFICIENCY ANALYSIS

3.1 Description

This section presents the financial management plan and corresponding plan of water and sewer rate adjustments developed in the revenue sufficiency analysis (RSA) that was conducted as part of the Study. The following sub-sections of the report present a description of the source data, assumptions, and results of the RSA, while Appendices A & B include detailed supporting schedules for the financial management plans identified herein for the water and sewer systems, respectively.

During the RSA we reviewed several alternative multi-year financial management plans and corresponding water and sewer rate revenue adjustment plans through interactive work sessions with City staff. During these work sessions, we examined the impact of various inputs or assumptions upon key financial indicators via graphical representations summarizing the results of the forecasting models under assumed conditions. In this way, we incorporated local information and management input as we developed the recommended financial management plan for the Utility and the resulting plans of water and sewer rate revenue adjustments presented in this report. The result is a financial plan that makes use of the City's current and best assumptions and data to satisfy the Utility's revenue requirements over a multi-year projection period while meeting key financial performance objectives and minimizing rate adjustments to the greatest extent possible.

In order to initialize the RSA, we obtained the City's historical and budgeted financial information regarding the operation of its water and sewer system, as well as historical customer counts and volume data by class of customer. We also obtained the City's multi-year capital improvement programs (CIP) and documented the City's current debt service obligations and covenants, or promises made to lenders, relative to net income coverage requirements, reserves, etc. We also counseled with City staff regarding other assumptions and policies that would affect the performance of the Utility, such as trends in demands, planned developments/customer growth, debt coverage and fund reserve levels, capital funding sources, earnings on invested funds, escalation rates for operating costs, etc.

All of this information was entered into two separate versions of the financial module of our proprietary Financial Analysis and Management System (FAMS-XL®) interactive modeling system (one for the water system, and one for the sewer system). This module of FAMS-XL® produced a ten-year projection of the

sufficiency of the revenue provided by the current rates of each system to meet current and projected financial requirements. It further determined the level of rate revenue increases necessary in each year of the projection period to satisfy each system's annual financial requirements.

The revenue sufficiency and financial planning module of FAMS-XL® utilizes all projected available 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 City staff, and it produces a detailed summary of the funding sources to be used for each project in the CIP. 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 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 requirements for each year in the projection period.

3.2 Source Data

The following presents the key source data relied upon in conducting the RSA:

Beginning Fund Balances

The FY 2016 Comprehensive Annual Financial Report (CAFR) and supporting trial balance schedules provided by City staff were used to establish beginning FY 2017 balances that were separated between the City's water and sewer systems by City staff.

Revenues

The revenues utilized in the RSA reflect an evaluation of multiple years of historical results, FY 2017 unaudited actual results and the FY 2018 Proposed Budget. Revenues consist of rate revenue, system development fees, interest income, and other minor revenue from miscellaneous service charges. Rate revenue is based upon the FY 2017 unaudited actual results, adjusted annually based upon assumed rate revenue adjustments as well as changes in both customer accounts and billed volumes. The FY 2017 unaudited actual results and the FY 2018 budget were used in FY 2017 and FY 2018 onward to project all other revenues amounts, excluding interest income (which was calculated annually based upon projected average fund balances and assumed interest rates) and revenue from system development fees (which is calculated based upon assumed growth in new accounts and current fees).

Operating Expenditures

The Utility's operating expenditures include all operating and maintenance expenses, transfers, debt service requirements and minor capital outlay. The RSA based the operating expenditure projections on the individual expense categories and expenses amounts contained in the FY 2017 unaudited actual results and the FY 2018 Proposed Budget, adjusted annually thereafter based upon assumed cost escalation factors. These were reviewed with City staff, with the exception of annual debt service expenses (which reflect the repayment schedules of each outstanding General Obligation and Excise Tax indebtedness as provided by City staff), regional wastewater treatment expenses, and purchased water costs.

The City's specific cost with regards to the Sub-Regional Operating Group (SROG), which provides the treatment and disposal of the City's wastewater, were forecasted using guidance provided by the SROG and in consultation with City staff. Additionally, purchased water requirements for the City were estimated on the cost guidance provided by both the SALT River Project and Central Arizona Project (CAP) and delivery quantities (acre feet) projections from City staff.

Capital Improvement Program

City staff provided the multi-year accelerated or best management CIP in project level detail from FY 2018 through FY 2022. The best management CIP is utilized in the Study as opposed to the adopted CIP in order to ensure that the proper and most current level of identified infrastructure needs of the utility is factored into the determination of annual expenditure requirements. The average annual CIP during that period was applied in FY 2023 and each year thereafter. Beginning in FY 2019, the RSA includes an annual cost inflation factor of 3.0% (based upon recent increases observed in the Engineering News Record Construction Cost Index) to account for the inflation in the future cost of construction.

In total, the CIP (including a current year placeholder and inflation) from FY 2017 through FY 2027 is approximately \$388 million and \$173 million, for the water and sewer systems, respectively. A list of projects and costs by year is included on Schedule 5 of Appendices A & B for the water and sewer systems, respectively.

3.3 Assumptions

The following presents the key assumptions utilized in the conduct of the RSA.

Cost Escalation

Annual cost escalation factors for the various types of operating and maintenance expenses were developed based upon discussions with City staff, a review of historical trends, and our industry experience. The specific escalation factors assumed for the various categories of expenses can be found on Schedule 2 of Appendices A & B for the water and sewer systems, respectively.

Interest Earnings

The RSA reflects assumed interest earning rates of 0.75% in FY 2017, 1.00% in FY 2018, 1.25% in FY 2019, and 1.50% in FY 2020 and each year thereafter.

Customer Growth & Volume Forecast

New connection and billed volume growth projections were based upon a review of historical data for each customer class from FY 2012 through FY 2016, observance of local environmental and economic conditions, and discussions with staff regarding the anticipated number of new service connections to the City and trends in water demands.

As part of developing the growth assumptions presented herein, we performed a detailed review of historical growth on a customer class level over the past five years. The recent growth trends were discussed with staff to then determine reasonable projections of system growth based upon the current and expected local environmental and economic conditions.

The following table presents the assumed growth schedules, expressed in equivalent residential units (ERUs), by customer class for the water and sewer systems. The assumed growth is used in forecasting annual system development fee revenue as well as increases in monthly base facility charge revenue and billed demands associated with system growth.

Table 3.1 Water & Sewer ERU Growth Schedule by Customer Class

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Water											
Single Family	74	75	75	75	75	75	75	75	76	76	76
Multifamily	65	66	66	66	67	67	68	68	68	68	69
Commercial	99	100	101	101	102	102	103	104	104	105	106
Industrial	5	5	5	5	5	6	6	6	6	6	6
Landscape	37	37	37	37	38	38	38	38	38	38	39
Construction	0	0	0	0	0	0	0	0	0	0	0
Total ERU Growth	281	283	284	285	286	288	289	290	292	293	294
Sewer											
Single Family	60	60	60	60	60	60	60	60	60	60	61
Multifamily	19	19	19	19	19	19	19	19	19	19	19
Commercial	48	48	48	48	48	48	48	48	48	48	49
Industrial	1	1	1	1	1	1	1	1	1	1	1
Landscape	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0
Total ERU Growth	127	128	128	128	128	129	129	129	129	129	130

In addition, it is assumed that minor reductions in average usage per account will occur much like they have in the recent past due primarily to continued technological innovation and conservation efforts. As such, demands on a per Equivalent Residential Unit (ERU) basis are expected to decline at 1%-3% year over year for most customer classes in the long term. The exception being multifamily accounts, which are expected to increase their per Equivalent Residential Unit (ERU) usage as City staff has indicated that new construction in this class is serving more units with smaller meters.

Table 3.2 Assumed Change in Water Usage per Account by Customer Class

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Per ERU Water Usage Change											
Single Family	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%
Multifamily	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Commercial	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%	-1.00%
Industrial	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Landscape	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%	-3.00%
Construction	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Minimum Reserve Policy

Reserve balances for utilities are funds set aside for a specific cash flow requirement, financial need, project, task, or legal covenant. These balances are maintained in order to meet short-term cash flow requirements and also minimize the risk associated with meeting the financial obligations and continued operational and capital needs under adverse conditions. The level of reserves maintained by a utility is an important component and consideration of developing a utility system multi-year financial management plan.

Many utilities, rating agencies, and the investment community as a whole place a significant emphasis on having sufficient reserves available for potentially adverse conditions. The rationale related to the maintenance of adequate reserves is twofold. First, it helps to ensure that a utility will have adequate funds available to meet its financial obligations during unusual periods (i.e. when revenues are unusually low and/or expenditures are unusually high). Second, it provides funds that can be used for emergency repairs or replacements to the system that can occur as a result of natural disasters or unanticipated system failures.

The City currently has financial policies in place that state targeted reserve balances. Financial policies should articulate how to determine the adequacy of the reserve fund balances and how the balances will be used. It is important to note that once reserve targets are established, they should be reviewed annually during the budgeting process to monitor current levels and assure conformance with stated policies and practices. Decisions can be made to maintain, increase, or spend down the reserve balances, as appropriate, depending upon the impact of such decisions to the upcoming budget period.

Moreover, a utility should review the approach used to establish reserve balances every three to five years. This time frame is appropriate given that debt levels and capital infrastructure activity can vary during this time, which would have an effect on the appropriate level of reserve balances. This type of review allows for the philosophy of establishing reserve targets to be modified to better reflect existing conditions and issues.

The financial management plans presented in this report assume that the City will maintain a minimum Operating Fund balance or reserve equal to 2% of book value and 25% of annual revenue. This level of reserve is very consistent with 1) our industry experience for similar systems, 2) the findings of reserve studies conducted by the AWWA, and 3) a healthy level of reserves for a municipal utility system per the evaluation criteria published by the municipal utility rating agencies (Fitch, Moody's, and Standard & Poor's).

Currently, the Utility has a fund balance in excess of its stated policy due to a reduction in the target level of reserves. The recommended financial plan presented herein utilizes existing excess reserves in a sustainable manner so as to avoid large rate spikes in the future (see the following chart). Upon the full utilization of surplus balances, which are a non-recurring source of revenues, the recommended financial management and rate plan utilizes gradual rate increases to build annual revenues of the Utility toward sufficiency with respect to projected annual expenditures over the next several years.

Graphic 3.3 Projected End of Year Reserves & Annual Cash Flows



Future Borrowing & Capital Funding

To the extent that any new long-term debt is required during the projection period, the RSA assumes it would be issued for a 20-year term at an interest rate of 3.00% increasing to 4.50% by 2023 and each year thereafter. The City's actual future financing and funding decisions will reflect actual future conditions and broader City-wide financing objectives, but the projections in the RSA reflect realistic overall conditions and are appropriate for planning purposes.

Per discussions with City staff during the RSA analysis, an objective was identified to refine the utilization of debt in the future, with the specific goal of increasing the proportion of capital assets funded through annual revenues. Debt financing is appropriate and contributes to inter-generational equity when carefully used to acquire assets with long useful lives. But water and sewer utilities have a disproportionately large percentage of long-lived assets relative to most other local government functions and as such, cash funding a portion of capital projects can contribute to financial sustainability by minimizing total financing costs for the utility.

While many factors (related to statutory spending limitations, regulatory requirements, environmental conditions, and a utility's life-cycle, for example) would impact the achievability of such an objective over any relatively short term

horizon, this objective will tend to strengthen any utility over time. Acknowledging that near-term constraints and specific future funding conditions may dictate some deviation, we support this general objective and recommend an increase in cash funding of typical renewal and replacement portions of the CIP. We also recommend to reserve the use of future debt funding primarily for projects associated with the expansion of capacity, extension of service, or specific major asset rehabilitation projects. A complete schedule of assumed future borrowing by type can be found on Schedules 12 of Appendices A & B for the water and sewer systems, respectively.

3.4 Results

Based upon the data, assumptions, and policies presented herein, the City's current water and sewer rates will not provide sufficient revenue to meet its ongoing debt service, capital, operating, and reserve requirements over a multi-year projection period. As such, the RSA developed a financial management plan and corresponding plan of water and sewer rate revenue increases that will meet the City's current and projected cost requirements under the assumed and projected conditions described in this report. Those revenue increases are presented in Table 3.4, which also provides the projected impact on monthly bills to an average residential user, including the costs of solid waste management.

Table 3.4: Residential Combined Bill

Residential Combined Bill

	FY2017 (Current)	FY 2018 (1) (Proposed)	FY 2019	FY 2020	FY 2021	FY 2022
Water (10,000 GAL)	\$ 31.20	\$ 32.26	\$ 33.63	\$ 35.06	\$ 36.55	\$ 38.10
Sewer (7,000 GAL)	\$ 23.18	\$ 23.18	\$ 23.18	\$ 23.18	\$ 23.64	\$ 24.11
Sanitation (96 Gallon Container)	\$ 23.60	\$ 25.09	\$ 25.59	\$ 26.10	\$ 26.49	\$ 26.89
Total	\$ 77.98	\$ 80.53	\$ 82.40	\$ 84.34	\$ 86.68	\$ 89.10
\$ Change		\$ 2.55	\$ 1.87	\$ 1.94	\$ 2.34	\$ 2.42
% Change		3.27%	2.32%	2.35%	2.77%	2.79%
Rate Revenue Adjustment						
Water		4.25%	4.25%	4.25%	4.25%	4.25%
Sewer		0.00%	0.00%	0.00%	2.00%	2.00%
Sanitation		2.00%	2.00%	2.00%	1.50%	1.50%

(1) Included proposed rate structure adjustments

It is important to note that the projections of future conditions underlying this analysis are not intended to be predictions. Applicable to many water and sewer utility systems, there are multiple factors beyond the City's control, such as i) weather, ii) regulatory changes, iii) national, regional, and local economic conditions, iv) the rate of growth in new customers, v) customer reaction to rate adjustments, vi) operating and capital cost inflation, and vii) changes in the timing and composition of the Utility's capital improvement program, that will have

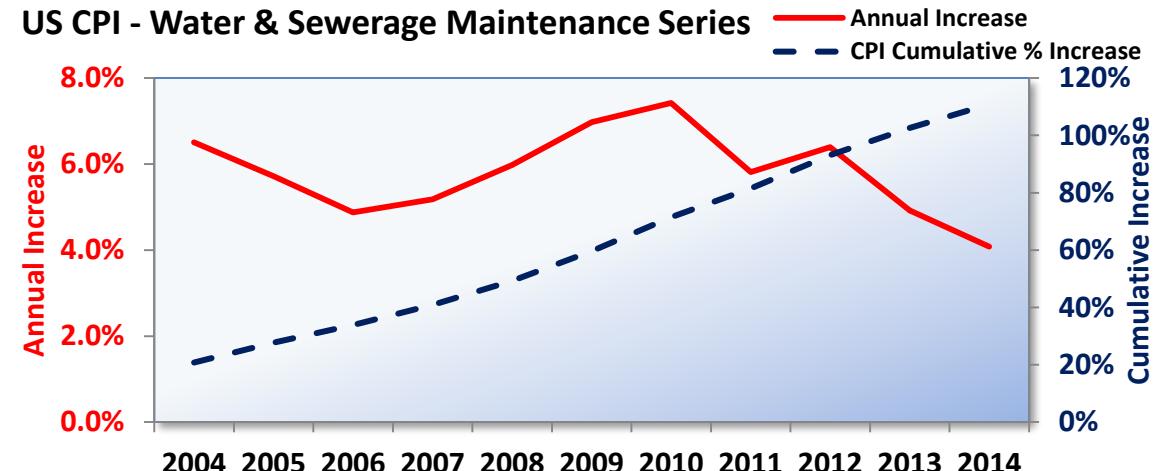
material impacts on the future financial condition of the City's utility operations. Further, the projections in this Study rely upon data and guidance provided during the course of the Study, and while the information utilized in this Study is believed to be reliable, detailed independent reviews or auditing of the data were not conducted.

As a result, there will usually be differences between forecast and actual results because events and circumstances frequently do not occur as expected, and those differences may be material. While we have no responsibility to update this report for events and circumstances occurring after the date of this report, future management actions must be informed by and adjusted to reflect future results as they occur. These comments are provided to emphasize the importance of active management informed by the actual future results of utility operations by the City. While the planning effort supported by this Study will serve to guide and inform the City in balancing future revenue and spending decisions, it is only through observation of future results that the City will be able to determine the actions required to ensure its financial and operational objectives are met.

Appendices A & B include detailed schedules presenting all components of the financial management plan developed for the Utility.

Local & National Water & Sewer Cost Trends

It is important to note that the recommended annual rate adjustments identified herein are consistent with national trends and our industry experience. As demonstrated in the following graph, the U.S. Consumer Price Index (CPI) Water & Sewerage Maintenance Series, which specifically measures the average national change in the cost of water and wastewater service to households, has risen at an average annual rate of approximately 6% during the past ten years. Moreover, many of our clients across the country are presently experiencing rate increase requirements in the range of 3 to 8% per year.



SECTION 4. COST OF SERVICE ALLOCATION

The purpose of a cost of service analysis (COSA) is to equitably distribute the revenue requirements between the various types of customers served based upon accepted industry practices. Such practices are documented by water industry publications such as Manual M1: Principles of Water Rates, Fees, and Charges (M1), published by the American Water Works Association (AWWA). The cost of service analysis conducted in this Study follows well-accepted industry standard practices by:

4.1 Description

- 1) Allocating costs to individual functions or activities (such as supply, treatment, transmission, meters/services, etc.). This step is often called "functionalization", and it links costs with what utilities do to meet customer demands.
- 2) Allocating, or assigning the cost of each function, to the appropriate cost components (such as average use, maximum day demands, peak hour demands, customers, etc.). This links costs with the customer characteristics that drive costs.
- 3) Distributing the costs of each component to customer classes in accordance with their demands according to the units of service required for each customer. This step recognizes that some of the units of service for customers are empirically determined based upon meter size or billed usage history, and some are based upon other data sources (such as peak hour demands and max day demands).

These steps focus on the water system, but similar steps are used to allocate costs for the City's sewer system. Sewer system costs tend to be driven by average daily sanitary system flows, wastewater strengths, and infiltration/inflow (I/I). As such, the key cost allocation considerations focus on differentiating between volume and strength related costs, and on aligning the allocation of sewer costs with indoor water usage to remove the impact of water consumption not associated with sanitary flows. This year's cost allocation analysis does not include a sewer analysis as staff is investigating options for obtaining local customer class specific wastewater loading factors that would be utilized in a future cost of service Study.

Cost of service studies reflect the analysis of conditions during a test year, selected to provide a normalized set of circumstances regarding key factors including operating and capital costs, consumption patterns and revenues, weather influences and other factors. Because cost of service studies reflect the influences

of changing technologies, regulatory requirements, system development, and customer behavior, the results tend to change over time. As a result, the process is generally used to provide direction and benchmarks for establishing rates by customer class rather than as a direct tool to set rates.

The specific application in rate setting is that an incremental approach is usually taken when incorporating a cost allocation result indicating significant change from previous patterns. This is often considered a prudent management strategy for two key reasons. First, it helps to minimize unduly disruptive changes in customer bills. Both residential and non-residential customers can be sensitive to utility bill changes large enough to cause a significant budgetary impact, so gradual rate adjustments are often adopted if cash flow requirements permit. Second, gradual changes help to minimize the chances of "whipsaw" changes in rates that can occur if cost allocations are implemented directly. This can occur when cost allocations are sensitive to one or more key factors and significant changes in these factors occur between analyses.

4.2 Components of the Analysis

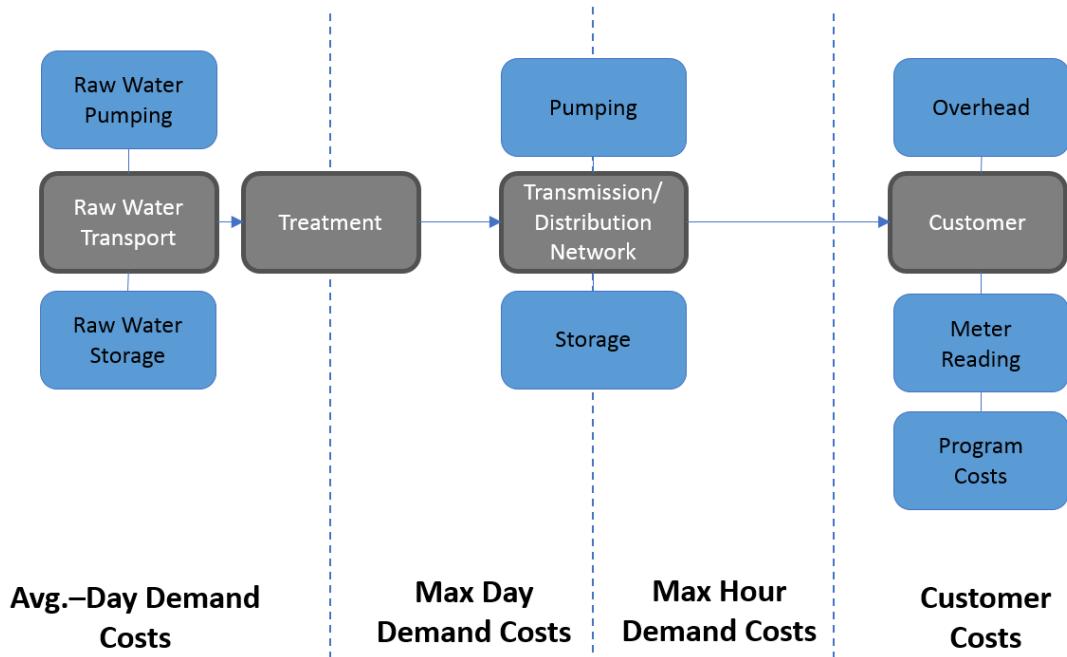
Below are summaries of the key components of the COSA, while the detailed schedules in Appendix C provide the cost allocations for the water system supporting the rate structure refinements recommended in this Study.

Water & Sewer System Cost Allocations

Allocations of shared costs between the City's water and sewer systems were briefly reviewed, and the City's maintenance of separate budgeting, expenditure, and revenue analysis for each function were confirmed.

Water System Functional Cost Allocations

The allocation of debt service, fixed assets, and annual operating expenses reflected the specific activities or functional components of providing water service. For purposes of this Study the functional components were identified as:



The functional allocations of each line item cost of the water system required a detailed review process of the activities being performed and the cost drivers of each. The City's detailed budget categories simplified the allocation process, allowing direct allocations in many cases. Expenses with general benefit and no direct link to a key functional category (i.e. indirect expenses) were allocated in proportion to the total operation and maintenance cost directly allocated to each function.

Distribution to Customer Classes

In establishing customer classes, utilities consider a number of factors, including service characteristics, facility requirements, demand patterns, and location in regard to jurisdictional boundaries (i.e. inside vs. outside municipal limits). Service characteristic differences include high volume industrial customers, wholesale customers and other large users potentially served directly from major transmission mains, whereas smaller users are served by both large and small distribution and collection mains. Similarly, there can be differences in demand patterns between various types of customers. For example, the residential customer class generally has summer lawn irrigation demands, which typically drive a higher peak-demand requirement relative to businesses, many of which may require water on a more uniform basis throughout the year.

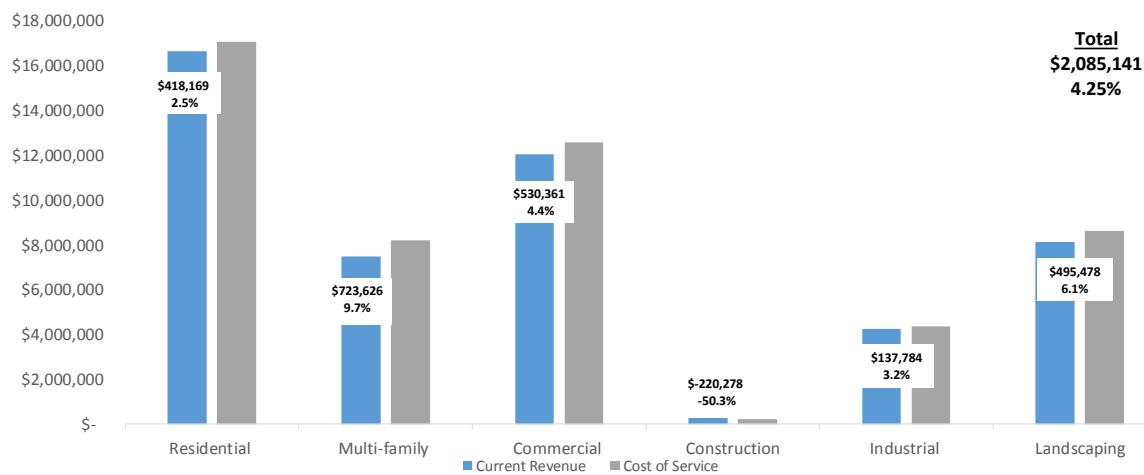
The City's customer and operational data provided a solid foundation for standard allocations of costs to customer classes. This information allowed a

complete review and update of these allocations and the determination of costs of service by customer class.

4.3 Results

The results of the COSA are summarized in the following table and confirm that the City's current rate structures are generally reflective of current cost of service requirements. As can be seen in Table 4.1, there are some modest differences between the cost of service results and current revenue recovery for certain customer classes. As such, while we are recommending rates that will result in an overall increase of revenue of 4.25% for water to meet the system's revenue requirements, the recommended rates presented herein are calculated based upon the respective cost of service allocation to each customer class. More specifically, the required overall system increases of 4.25% for water is recommended to be achieved through a variety of different adjustments to rates for each customer class based in part on the cost allocations depicted below in Graphic 4-1.

Graphic 4-1: Water System Customer Class Revenue & Cost of Service Distribution



SECTION 5. RATE STRUCTURE ANALYSIS

We have reviewed the City's current water and sewer rate structure, and while we conclude that it is generally fair and equitable, we do recommend modifications to the rate structure to address the following general objectives:

1. Maintaining fair and equitable recovery of the City's current cost of service and revenue requirements from each customer class,
2. Conformance to current accepted national and local industry practices,
3. Promotion of efficient resource usage and consideration of the impact of current and future water quality and environmental regulations.

The following sub-sections present a description of the basis of the recommended rate structure, supporting FY 2018 rate schedules as well as the customer impacts of the FY 2018 rate recommendations. The recommended rate structure presented herein is intended for implementation on January 1, 2018, and it includes the recommended FY 2018 rate revenue increases of 4.25% and 0% identified in the RSA for the water and sewer systems, respectively.

5.1 Fixed Charges

Common industry practice is a two-part rate structure comprised of both fixed and variable charges. Generally accepted practice recovers a portion of the costs of the system in a fixed readiness-to-serve charge, recognizing that utilities have substantial investments in capacity-related costs and other fixed costs that are incurred year-round to maintain a state of readiness to meet peak demands of their customers when they occur. Simply put, utilities incur these fixed costs regardless of the level of customer usage.

The City currently has a fixed charge for water service. This charge includes a monthly base facility charge per Equivalent Residential Unit (ERU) that is scaled based upon meter size for non-residential customers. This type of structure is very common industry practice. As such, we recommend that the City maintain its existing monthly base facility charge structure and level of charges for both water and sewer service.

5.2 Volumetric Charges

Volumetric water and sewer charges are based upon metered water use and for potable water, inclining block rate structures are increasingly common in many

areas of the country where water conservation is essential. Inclining block rate structures are intended to provide price incentives to reduce discretionary water use, notably outdoor irrigation. The City currently applies an inclining block water rate structure to its residential customers, and a single volumetric rate unique to each customer class. Similarly, the City also applies a single volumetric sewer rate unique to each class of customer based upon metered water use (with residential billable volumes being based upon 70% of winter average water use).

Inclining block rate structures are often applied to single family residential accounts as well as separate irrigation meters. However, this type of rate structure is often times not applied to commercial or other non-residential accounts. The reasons for this being i) commercial customers have a profit incentive to be as efficient with their water use as possible to maximize their net incomes, ii) water used for their service delivery or production processes is also billed sewer charges, resulting in effective unit costs that are very comparable to the highest rates of an inclining block rate structure, iii) many commercial accounts have separate irrigation-only meters for their outdoor landscaping needs that are often subject to an inclining block rate structure, and iv) applying inclining block rates to water intensive businesses (such as Laundromats, car washes, bottling facilities, etc.) can be punitive in that substantial portions of their non-discretionary water use are charged very high rates that are intended to primarily provide a price signal to curb excessive discretionary use (such as outdoor irrigation).

As it relates to the City's volume-based rates, we recommend the following:

1. Adjust the amount of water consumption in each tier of the current single family residential inclining block rate structure to more closely align with discretionary and non-discretionary usage profiles (see Graphic 5.3 for details).
2. Price single family residential tiers based on an assignment of average day, max day and peak hour cost based on observed peaking behavior in tier volumes observed within the test year billing data.
3. Implement a sewer billing cap, or maximum, of 12,000 gallons for wastewater winter averages to avoid application of wastewater charges on outdoor water use.
4. Continue to apply unique water usage rates to all metered volume for all other users based upon the respective cost requirements necessary to serve each customer class.

5. Continue to apply unique sewer volumetric or usage rates to the billed use for all customer classes based upon the cost requirement to serve each class of customer.

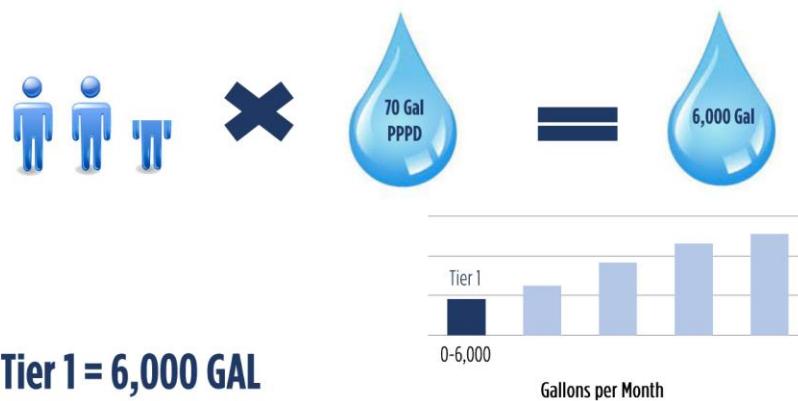
5.3 Refined Tiered Structure for Residential

As indicated, Stantec recommends adjustments to the City's current inclining block rate structure that enhance equity, adherence to cost of service results, promote water conservation and improve conformance to current local practices. Graphic 5.1 provides a summary of the residential water usage profile used to establish the recommended water use within each tier of the inclining block rate structure presented herein. The summary illustrates the support of the initial tier at 6,000 gallons per month, which is sufficient to provide an allowance for typical indoor domestic use of 70 gallons per capita per day (per guidance from the EPA), and an assumed 2.63 persons per household in City from the U.S. Census Bureau. This first tier essentially represents a standard "indoor use" allocation for a typical residential customer. The next tier then spans the range from 6,000 to 12,000 gallons per month, providing an allowance for the indoor domestic use of larger families (which may in some cases also be for modest amounts of outdoor uses by smaller families).

Graphic 5.1: Single-Family Tier 1&2 Calculations

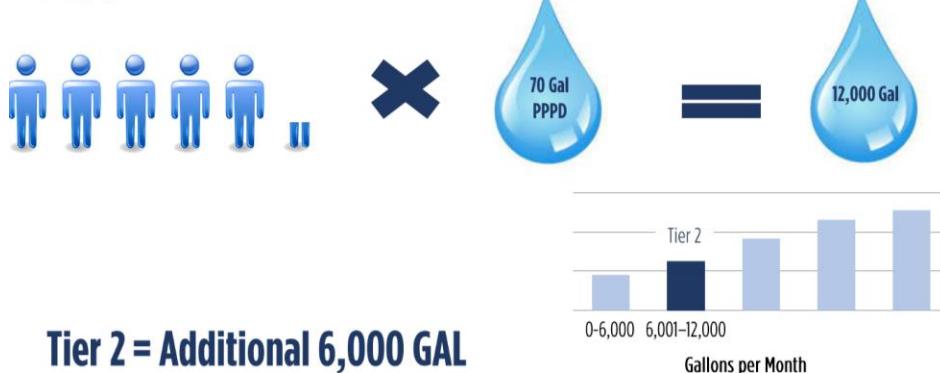
Monthly SFR Tier Sizing

Tier 1



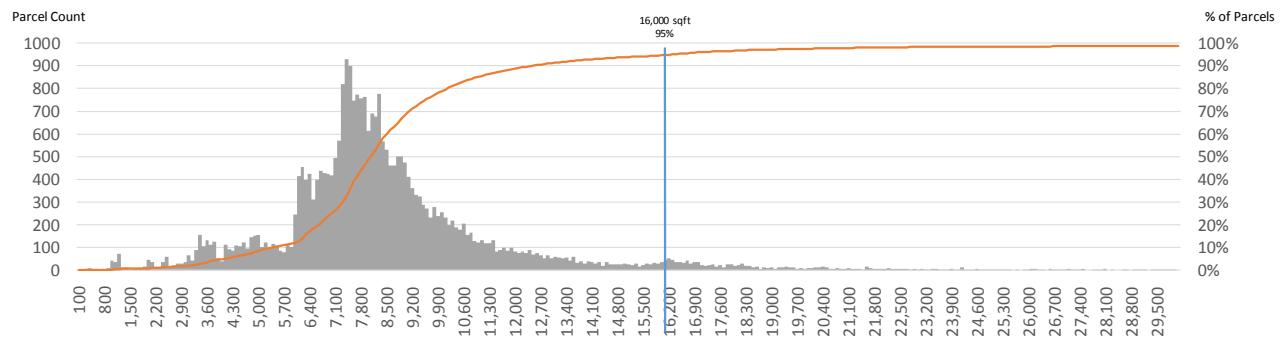
Monthly SFR Tier Sizing

Tier 2



The next two tiers, accommodating efficient amounts of discretionary irrigation for typical (8,000 sqft) and larger (16,000 sqft) properties. These tiers were sized based on a detailed analysis of residential property size distributions in the community, and they accommodate both the average property size (8,000 sqft) as well as those at the 95th percentile (16,000 sqft).

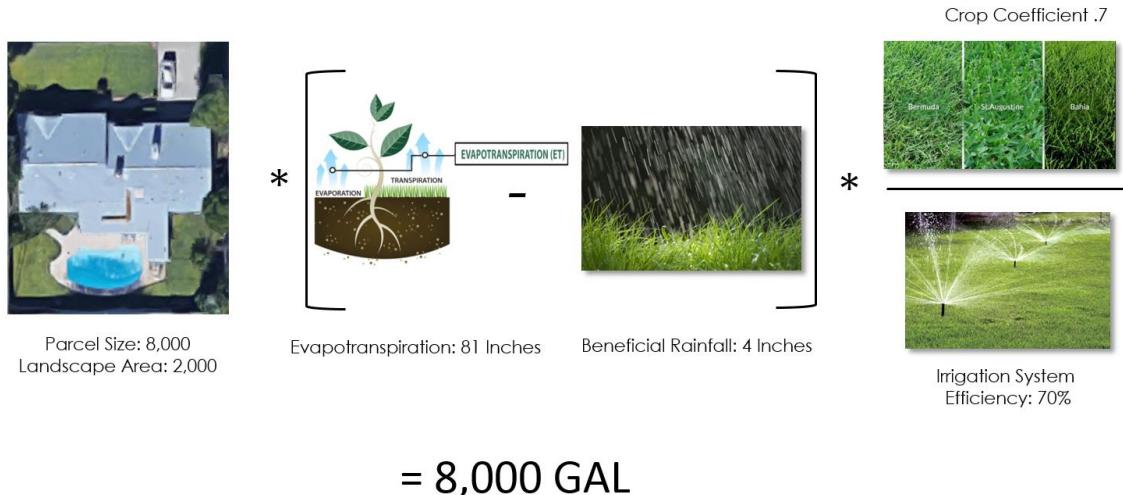
Graphic 5.2: Single-Family Parcel Distribution



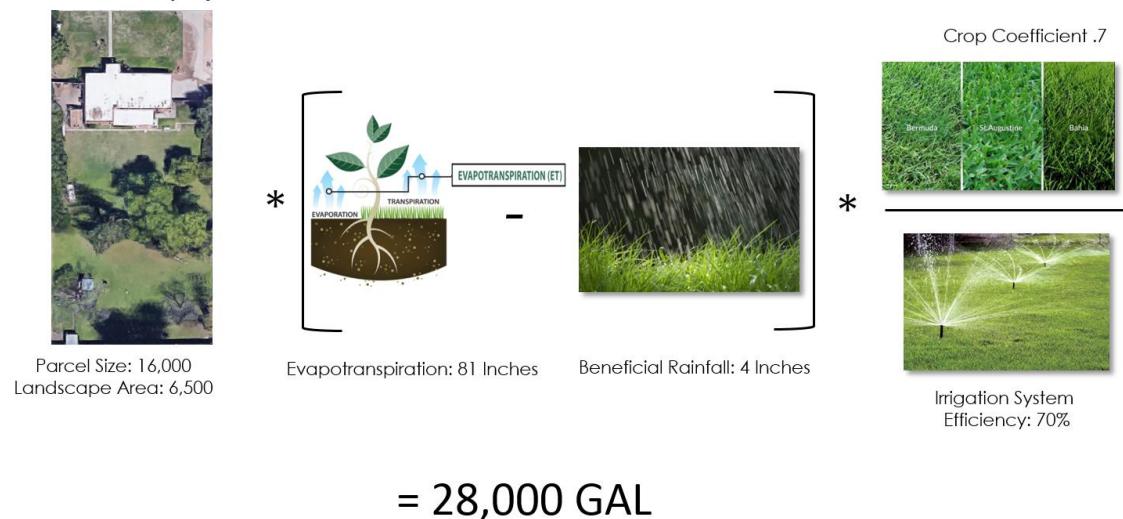
Additionally, irrigation tier sizes incorporate local evapotranspiration data, local turf grass requirements and allowances for irrigation efficiency. In doing so, the proposed irrigation tiers are sized in the most customer centric way possible with the data available. The above Graphic 5.2 details the residential property distribution used to determine the average and 95th percentile property sizes that were incorporated in the single-family rate structure. The following Graphic 5.3 presents the calculations used for tiers three and four of the residential inclining block structure.

Graphic 5.3: Single-Family Tier 3&4 Calculations

Irrigation Requirements for the Median Parcel (8,000 sqft) Tier 3

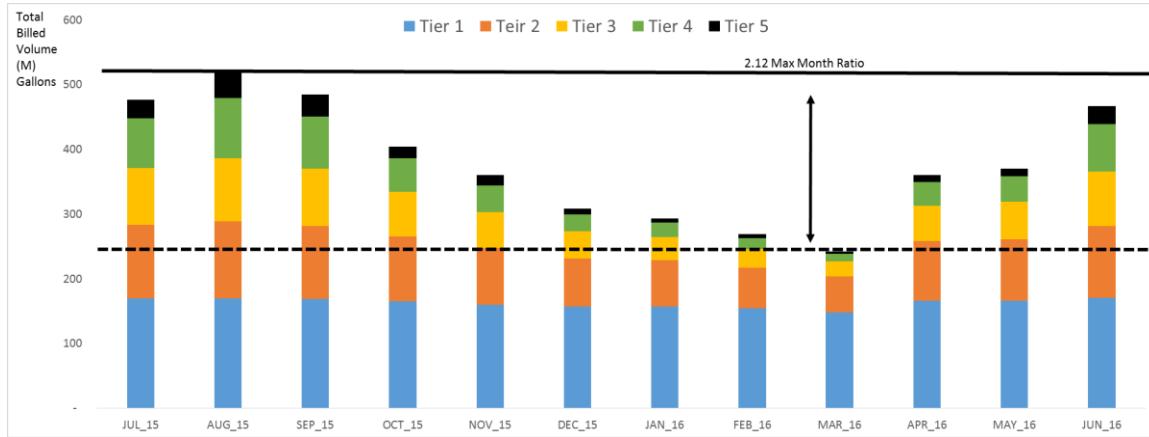


Irrigation Requirements for a larger Parcel (16,000 sqft) Tier 4



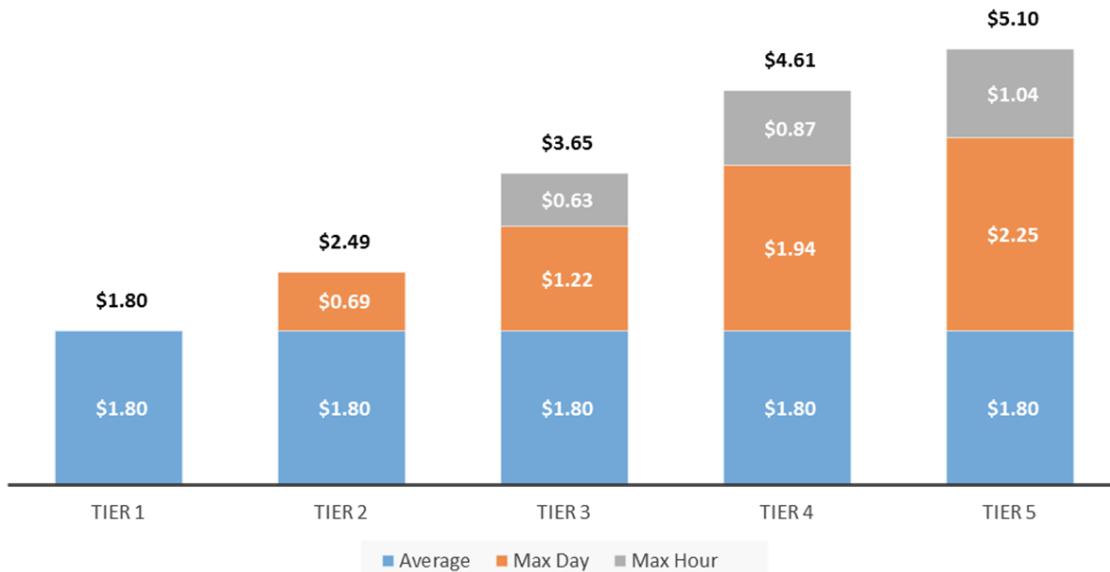
The pricing of the residential inclining tier structure was accomplished through the direct assignment of residential average day, max day and max hour system cost to tiers based on the peaking nature of tier volume over the test year (FY 2016), as demonstrated in graphic 5.4.

Graphic 5.4: Residential Usage in FY 2016



Using the system peaking cost as identified in the cost of service analysis (COSA) and attaching those costs to the volume that peaks the system establishes a rational nexus that greatly enhances the defensibility and equity inherent in the rate structure as shown in the following graphic 5.5. Average day costs were assigned equally to all tiers as they are incurred proportionally based on total or average day volume. Costs associated with meeting maximum day demands placed on the system were included starting in tier two, as this tier includes outdoor irrigation for typical residential customers in addition to indoor use for larger families. Additionally, costs associated with meeting peak hour demands placed on the system were included starting in tier three, as this tier includes outdoor irrigation for many residential customers in addition to indoor use for very large families. Costs associated with meeting maximum day and peak hour demands were assigned to each tier based on the amount of billed volume in the months in which the system max day and peak hour demands occurred above the billed volumes during the lowest month of the year in each tier.

Graphic 5.5: Residential System Cost Component Allocation to Tiers



5.4 Sewer winter average Cap

In addition to the recommended inclining water block charges, this Study also recommends adjusting the single family residential sewer billing calculation to include a cap, or maximum, at 12,000 gallons on the winter average billable volume. Doing so better insures the inherent equity of wastewater charges by setting an upper billable limit based upon the essential domestic indoor usage requirements of a large family as established in tier two of the single family residential inclining block structure. Additionally capping sewer charges at 12,000 gallons serves to ensure that non-transitory irrigation demands are not unfairly captured in the winter average wastewater calculation.

5.5 Rate Impacts

Table 5.6 presents the monthly impacts to single family residential customers inside the City of the recommended FY 2018 rate structure that includes the identified revenue increases from the RSA. The table highlights the average usage of single-family residential customers at 10,000 gallons of water use per month (assuming a winter average of 7,000 gallons for sewer charges purposes), and demonstrates that with the recommended rate structure modifications, typical inside-City residential customers would see a \$1.06 increase. The maximum amount that a combined water and sewer single-family residential customer would see is approximately \$3.01 at a usage level of 17,000 gallons monthly. A schedule of the

water and sewer rates recommended for FY 2018 and additional customer impact tables (non-residential and landscape meters) are included in Appendix D of this report.

Table 5.6: Inside-City Customer Monthly Bill Impact

Residential 5/8" Meter Water & Sewer Bill Calculations				
Monthly Use (Gal)	Current	Proposed		
	FY 17	FY 18	\$ Chg	% Chg
0	\$21.80	\$21.80	\$0.00	0.0%
1,000	\$24.88	\$24.89	\$0.01	0.0%
2,000	\$27.96	\$27.98	\$0.02	0.1%
3,000	\$31.03	\$31.06	\$0.03	0.1%
4,000	\$34.11	\$34.15	\$0.04	0.1%
5,000	\$37.19	\$37.24	\$0.05	0.1%
6,000	\$40.27	\$40.33	\$0.06	0.1%
7,000	\$43.80	\$44.11	\$0.31	0.7%
8,000	\$47.32	\$47.88	\$0.56	1.2%
9,000	\$50.85	\$51.66	\$0.81	1.6%
10,000	\$54.38	\$55.44	\$1.06	1.9%
11,000	\$57.91	\$59.22	\$1.31	2.3%
12,000	\$61.44	\$63.00	\$1.56	2.5%
13,000	\$66.08	\$67.93	\$1.85	2.8%
14,000	\$70.73	\$72.87	\$2.14	3.0%
15,000	\$75.38	\$77.81	\$2.43	3.2%
16,000	\$80.03	\$82.75	\$2.72	3.4%
17,000	\$84.68	\$87.69	\$3.01	3.6%
18,000	\$89.32	\$91.52	\$2.20	2.5%
19,000	\$93.97	\$95.17	\$1.20	1.3%
20,000	\$98.62	\$98.82	\$0.20	0.2%
30,000	\$161.90	\$144.92	-\$16.98	-10.5%
40,000	\$225.18	\$191.02	-\$34.16	-15.2%
50,000	\$288.46	\$242.02	-\$46.44	-16.1%
60,000	\$351.74	\$293.02	-\$58.72	-16.7%
70,000	\$415.02	\$344.02	-\$71.00	-17.1%
80,000	\$478.30	\$395.02	-\$83.28	-17.4%
90,000	\$541.58	\$446.02	-\$95.56	-17.6%
100,000	\$604.86	\$497.02	-\$107.84	-17.8%

*Sewer charges calculated based on 70% of winter monthly water use, with a cap, or maximum, at 12,000 gallons.

	Current	Proposed	% Increase
Multifamily	\$2.22	\$2.51	13%
Commercial	\$2.46	\$2.59	5%
Construction	\$4.07	\$4.07	0%
Industrial	\$2.54	\$2.63	4%
Landscaping	\$3.28	\$3.51	7%

*The City has elected to maintain the current construction meter rate recognizing the substantial variability in construction meter usage that occurs from year to year, which causes fluctuations to the cost of service allocations to this customer class.

This Study also recommends that the City focus on enhancing customer communication regarding the changes in water and sewer rates. The rationale for these changes may not be obvious to most customers, very few of which are likely to give much active thought to the challenges facing the City's water and sewer systems. Negative perspectives can often gain ground in communities unsupported by accurate and clearly stated information from those with the most information. By contrast, positive messages associated with the City's active current management of the Utility cannot be expected to develop without action taken by the City.

The City is embracing this need and has already scheduled to conduct customer outreach sessions to the various customer classes impacted from the proposed changes in addition to formal council presentations regarding the rate proposals described herein. These sessions are intended to enhance the customers' understanding of the changes. This initiative is potentially unique and would seem to offer an unmatched opportunity to communicate clearly with interested citizens and businesses, and to diffuse any misunderstanding at the outset.

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Additionally, the purpose of this document is to summarize Stantec's analysis and findings related to this project, and it is not intended to address all aspects that may surround the subject area. Therefore, this document may have limitations, assumptions, or reliances on data that are not readily apparent on the face of it. Moreover, the reader should understand that Stantec was called on to provide judgments on a variety of critical factors which are incapable of precise measurement. As such, the use of this document and its findings by the **Error! Reference source not found.** should only occur after consultation with Stantec, and any use of this document and findings by any other person is done so entirely at their own risk.

APPENDIX A – WATER SYSTEM

Supporting Schedules for the Revenue Sufficiency Analysis

Schedule 1- Assumptions

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Annual Unit Growth											
Equivalent Residential Units (ERUs)	76,792	77,075	77,359	77,644	77,930	78,218	78,507	78,797	79,089	79,382	79,677
Growth in ERUs	N/A	283	284	285	286	288	289	290	292	293	294
Percent Increase in ERUs	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Annual Volume Growth											
Total (TGAL)	15,369,186	15,336,774	15,307,877	15,282,502	15,260,656	15,242,347	15,227,587	15,216,389	15,208,769	15,204,744	15,204,332
Growth in Volume	N/A	-32,412	-28,896	-25,375	-21,847	-18,309	-14,760	-11,198	-7,620	-4,025	-411
Percent Increase in Volume	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Capital Spending:											
Annual Capital Budget (Future Year Dollars)	\$30,100,000	\$41,402,633	\$35,097,872	\$33,840,445	\$31,183,602	\$25,612,388	\$35,878,724	\$36,962,206	\$38,076,645	\$39,222,040	\$40,398,391
Annual Percent Executed	100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Water System Development Fee	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664	\$ 1,664
Average Annual Interest Earnings Rate:											
On Fund Balances:	0.75%	1.00%	1.25%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
Operating Budget Reserve:											
Target (percent of revenue)	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
Operating Budget Execution Percentage:											
Personal Services	100%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
Variable Operations and Maintenance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fixed Operations and Maintenance	100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%

Operating Expense Category	Account Number	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Salaries	6010	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Wages	6011	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Overtime	6012	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Vacation Pay	6013	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Sick Pay	6014	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Holiday Pay	6015	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Compensation Adjustment	6016	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bilingual Pay	6017	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Event/Reimbursement- Labor	6020	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Event/Reimbursement-Labor	6020	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Economic Adj-Prsnl Svcs	6098	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fica Taxes	6120	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Arizona State Retirement	6121	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Employee Health Insurance	6123	8.20%	8.20%	8.20%	8.20%	8.20%	8.20%	8.20%	8.20%	8.20%
Long Term Disability	6126	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Mediflex Reimbursed Expens	6127	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Defined Benefit- Ret Healt	6128	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
OPEB Trust Contribution	6129	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Defined Contribution- Ret	6138	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Vehicle Allowance Pmts	6141	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Pre-medicare HRA Contribut	6142	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Pension Expense	6144	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
ACR-ASRS	6145	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
LTD-ASRS	6148	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
General Office Supplies	6201	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Film + Recording Supplies	6301	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Honor Guard Supplies	6303	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Graphics Supplies	6304	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Uniform Allowance	6305	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Education Supplies	6306	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Chemical Supplies	6310	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Water Meters, Boxes + Fitt	6311	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Lab Supplies	6313	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Diesel Fuel	6314	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Landscaping Supplies	6315	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Rec + Playground Supplies	6320	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Hazardous Material Supplie	6339	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Gasoline + Diesel Fuels	6340	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Oil + Lubricants	6342	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Compressed Natural Gas	6343	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Propane Gas	6344	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Fats, Oil + Grease	6345	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Hand Tools	6350	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Minor Equipment	6351	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Energy Conservation Progra	6353	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Shop Supplies	6356	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Traffic Control Materials	6360	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Street + Traffic Sign Mate	6362	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Paint, Thinner, Etc.	6366	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Printing + Copier Supplies	6370	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Printing & Copier Supplies	6370	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Building Materials	6401	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Plumbing Materials	6403	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Special Systems	6404	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Refrigeration Supplies	6405	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Electrical Supplies	6406	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Motor Vehicle Parts	6410	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Communication Equip Part	6415	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Comm. Parts - Telephone	6416	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating + Maint. Supplie	6420	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
SCBA Parts + Supplies	6421	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Fire Hose + Nozzle	6422	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Emergency Preparedness	6423	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Custodial Supplies	6425	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Street Repair Materials	6430	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Concrete Repair Materials	6433	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Books + Publications	6505	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
First Aid Supplies	6513	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Awards + Recognition	6514	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Image and Collateral	6515	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Event/Reimbursement- M + E	6520	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Event/Interactivity	6521	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Misc Event Supplies	6551	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Other Equipment + Supplies	6552	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Unrealized Discounts	6556	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Miscellaneous Supplies	6599	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Conservation Rebate	6601	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Off-line Usage Fee	6603	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Schedule 2- Cost Escalation Factors

Water & Sewer Rate Study

Operating Expense Category	Account Number	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Electricity- Audit	6604	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Electricity	6605	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Environmental Permits	6606	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Sludge Disposal	6608	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Water, Refuse + Sewer	6609	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Electricity- Traffic Signa	6612	2.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
ADWR Municipality Fees	6613	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
SRP Water	6615	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
CAP Water	6616	3.11%	3.01%	1.75%	12.64%	4.61%	4.61%	4.61%	4.61%	4.61%
Security	6625	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
ASU FLASH Transit	6626	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bike Advisory Committee	6627	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Events/Promotions	6629	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Greyhound- Remittance	6641	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Rule 11 Ser	6651	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Appraisal, Record + Title	6652	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Consultants	6656	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Survey + Staking	6657	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Testing	6659	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Recruitment	6662	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Legal Fees	6668	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Landscape Maint. Contract	6671	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Contracted Services	6672	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Landfill Usage Charges	6673	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Storage Tank Compliance	6674	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Software Purchases	6675	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Training + Development	6676	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Hazardous Waste Disposal	6677	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Software Lease/Rental	6682	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Software Maintenance	6683	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bank Service Charges	6685	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Hardware Maintenance	6689	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Medical-Physical Exams	6690	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bus Stop College Univ-5th	6692	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Laundry Uniforms + Towel	6693	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interpreters	6694	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interpreters	6694	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
WW Plant-Regional Op Exp	6698	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
DS General Plan	6699	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Cell Phone Charges	6701	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Telecommunication Services	6702	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Building + Structure Maint	6703	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Postage	6704	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Equipment Maintenance	6705	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Traffic Control Services	6711	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Postage - Exclusion	6713	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Membership + Subs	6716	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Assessments	6717	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Freight, Moving + Towing	6720	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Adver-Information	6732	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Adver-Dept Projects	6733	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Advertising	6751	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Outside Printing/Forms	6753	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Duplicating	6755	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Property Insurance Premium	6802	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
General Property Claims	6811	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Incentive Payments	6821	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Restitution Reimbursemnt	6832	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Auto Collision Repair	6840	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Building + Structure Repai	6852	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Car Wash	6854	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Equipment + Machinery Repa	6856	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Storm Drain + Irrigat Repa	6864	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Communication Equip Repair	6870	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Land Lease	6904	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Equipment + Machine Rental	6906	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
PC Source Charges	6909	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Taxes + Licenses	6990	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Bad Debt Expense	6992	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
ProCard Disputed Items	6994	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Parking	6996	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

Schedule 2- Cost Escalation Factors

Water & Sewer Rate Study

<u>Operating Expense Category</u>	<u>Account Number</u>	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Misc. Fees + Services	6999	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Special Projects	7090	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Training + Seminars	7401	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Employee Mileage Expense	7402	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Travel Expense	7403	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Local Meetings	7404	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Land Acquisitions	7501	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Structure + Bldg Improveme	7504	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Street Construction	7505	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Office Equipment	7506	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Motor Vehicles	7508	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Heavy Equipment	7509	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Radio Equipment	7510	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Other Equipment	7511	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Photo, Video + Audio Equip	7512	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Water Treatment + Pump	7515	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interior Improvements	7517	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Computer Equipment	7518	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Infrastructure	7525	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Office Furniture	7527	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Xfer Y/E Credits to Bal Sh	7530	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Fiscal Agent Fees	8003	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Arbitrage	8004	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Xfer Y/E Credits to B/S	8005	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Depreciation	8051	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
W/WW Inventory Purchases	8171	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
W/WW Inventory Issues	8173	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
W/WW Inventory Adj	8174	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
W/WW Inventory Freight	8175	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
W/WW Inventory Sales Tax	8176	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Technology Costs	8301	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Vehicle Maintenance Cost	8303	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Worker's Comp Claims	8304	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Communications Costs	8305	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Vehicle Fuel/Oil Costs	8306	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Telephone Costs	8307	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Support Services Charges	8309	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Risk Management Charges	8313	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Charges	8315	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Cr-General	8320	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Cr-Labor	8321	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Contingency Budget	8401	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
CIP Transfer To	8551	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interfund Transfer To	8552	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Reimbursement	8555	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Loan Repayment	8556	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Defined Contribution- Ret HRA	6138	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Multifamily Rebates	6721	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Personalized Home Water Report	6722	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Indust/Comm Landscape Rebate	6723	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Neighborhood Grants	6724	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Parks Irrig Syst Efficiencies	6725	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Industrial Grants	6726	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Eq Maint Cap Outlay Cost	8308	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Default Inflation Factor (if expense not listed above)		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

SOURCE: 2017 Beginning Balances

FUND TITLE	Balance as of 6/30/2016	Funds Encumbered or Reserved for Projects not in the CIP	Beginning Balance Available for Projects in the CIP
System Development Fee	\$ 6,352,713	0	6,352,713
Bond Proceeds Fund	\$ 19,488,000	0	19,488,000
Capital Fund	\$ 8,433,287	0	8,433,287
Revenue Fund	\$ 42,634,000	0	42,634,000
Restricted Reserves	\$ 0	0	0
Total Consolidated Fund Balance	\$ 76,908,000	-	76,908,000

Schedule 4- Account and Usage Forecast

Water & Sewer Rate Study

Fiscal Year	2015	2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
SFRES													
Total ERUs	37,181	37,212	37,286	37,361	37,436	37,510	37,585	37,661	37,736	37,811	37,887	37,963	38,039
Change		31	74	75	75	75	75	75	75	75	76	76	76
%Change		0.08%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	4,504,709	4,609,929	4,572,958	4,536,282	4,499,901	4,463,812	4,428,012	4,392,500	4,357,272	4,322,327	4,287,662	4,253,275	4,219,163
Consumption per ERU	10.10	10.32	10.22	10.12	10.02	9.92	9.82	9.72	9.62	9.53	9.43	9.34	9.24
Change Per ERU		0.23	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	-0.09	-0.09
%Change Per ERU		2.3%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
MFRES													
Total ERUs	12,881	13,067	13,133	13,198	13,264	13,330	13,397	13,464	13,531	13,599	13,667	13,735	13,804
Change		186	65	66	66	66	67	67	67	68	68	68	69
%Change		1.45%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	2,554,073	2,648,644	2,715,125	2,783,275	2,853,135	2,924,749	2,998,160	3,073,414	3,150,557	3,229,636	3,310,699	3,393,798	3,478,982
Consumption per ERU	16.52	16.89	17.23	17.57	17.93	18.28	18.65	19.02	19.40	19.79	20.19	20.59	21.00
Change Per ERU		0.37	0.34	0.34	0.35	0.36	0.37	0.37	0.38	0.39	0.40	0.40	0.41
%Change Per ERU		2.2%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
COMM													
Total ERUs	16,269	16,563	16,662	16,762	16,863	16,964	17,066	17,168	17,271	17,375	17,479	17,584	17,690
Change		294	99	100	101	101	102	102	103	104	104	105	106
%Change		1.81%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%	0.60%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	3,608,359	4,120,233	4,103,505	4,086,844	4,070,252	4,053,727	4,037,269	4,020,877	4,004,552	3,988,294	3,972,102	3,955,975	3,939,914
Consumption per ERU	18.48	20.73	20.52	20.32	20.11	19.91	19.71	19.52	19.32	19.13	18.94	18.75	18.56
Change Per ERU		2.25	-0.21	-0.21	-0.20	-0.20	-0.20	-0.20	-0.20	-0.19	-0.19	-0.19	-0.19
%Change Per ERU		12.2%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%

Schedule 4- Account and Usage Forecast

Water & Sewer Rate Study

INDUS

Total ERUs	1,077	1,077	1,082	1,088	1,093	1,099	1,104	1,110	1,115	1,121	1,126	1,132	1,138
Change		0	5	5	5	5	5	6	6	6	6	6	6
%Change		0.00%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Usage (1,000 gal.)

Consumption (T Gal)	1,767,750	1,688,874	1,697,319	1,705,805	1,714,334	1,722,906	1,731,520	1,740,178	1,748,879	1,757,623	1,766,411	1,775,243	1,784,120
Consumption per ERU	136.78	130.68	130.68	130.68	130.68	130.68	130.68	130.68	130.68	130.68	130.68	130.68	130.68
Change Per ERU		-6.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
%Change Per ERU		-4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

LNDSC

Total ERUs	6,821	7,352	7,389	7,426	7,463	7,500	7,538	7,575	7,613	7,651	7,689	7,728	7,767
Change		531	37	37	37	37	38	38	38	38	38	38	39
%Change		7.78%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%

Usage (1,000 gal.)

Consumption (T Gal)	2,117,354	2,272,385	2,215,234	2,159,521	2,105,209	2,052,263	2,000,649	1,950,332	1,901,282	1,853,464	1,806,850	1,761,407	1,717,108
Consumption per ERU	25.87	25.76	24.98	24.24	23.51	22.80	22.12	21.46	20.81	20.19	19.58	18.99	18.42
Change Per ERU		-0.11	-0.77	-0.75	-0.73	-0.71	-0.68	-0.66	-0.64	-0.62	-0.61	-0.59	-0.57
%Change Per ERU		-0.4%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%	-3.0%

CONST

Total ERUs	1,314	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240	1,240
Change		-74	0	0	0	0	0	0	0	0	0	0	0
%Change		-5.64%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Usage (1,000 gal.)

Consumption (T Gal)	71,971	65,046	65,046	65,046	65,046	65,046	65,046	65,046	65,046	65,046	65,046	65,046	65,046
Consumption per ERU	4.56	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37
Change Per ERU		-0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
%Change Per ERU		-4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Schedule 5- Capital Investment Plan

Water & Sewer Rate Study

Project Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Shared WTP Asset Maintenance & Upgrades	\$ -	760,000	40,000	40,000	40,000	120,000	-	-	-	-	-
JGMWTP Asset Maintenance & Upgrades 17-18	\$ -	1,539,000	-	-	-	-	-	-	-	-	-
STWTP Asset Maintenance & Upgrades 17-18	\$ -	3,350,953	-	-	-	-	-	-	-	-	-
JGMWTP Asset Maintenance & Upgrades 18-19	\$ -	276,000	1,308,000	-	-	-	-	-	-	-	-
STWTP Asset Maintenance & Upgrades 18-19	\$ -	176,000	1,382,557	-	-	-	-	-	-	-	-
JGMWTP Asset Maintenance & Upgrades 19-20	\$ -	40,000	104,000	984,000	-	-	-	-	-	-	-
STWTP Asset Maintenance & Upgrades 19-20	\$ -	-	123,000	1,165,643	-	-	-	-	-	-	-
JGMWTP Asset Maintenance & Upgrades 20-21	\$ -	75,000	-	150,000	1,421,000	-	-	-	-	-	-
STWTP Asset Maintenance & Upgrades 20-21	\$ -	-	-	-	628,000	-	-	-	-	-	-
JGMWTP Asset Maintenance & Upgrades 21-22	\$ -	-	-	-	-	316,000	-	-	-	-	-
STWTP Asset Maintenance & Upgrades 21-22	\$ -	-	-	-	-	2,762,000	-	-	-	-	-
Filter Rehabilitation at Water Treatment Plants	\$ -	850,000	-	-	-	-	-	-	-	-	-
Valve & Hydrant Program	\$ -	1,460,000	1,460,000	824,000	824,000	424,000	-	-	-	-	-
Neighborhood Waterline Replacements	\$ -	14,535,250	11,280,544	16,001,606	18,955,316	14,028,084	-	-	-	-	-
Transmission Main Improvements	\$ -	336,000	3,054,000	-	-	-	-	-	-	-	-
Miscellaneous Waterline Projects	\$ -	2,250,000	2,650,000	2,150,000	2,650,000	2,150,000	-	-	-	-	-
Mobile Workforce Management	\$ -	300,000	-	-	-	-	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
Elevated Storage Tank Rehabilitation	\$ -	3,630,827	1,949,619	200,113	200,113	-	-	-	-	-	-
Booster Station Asset Maintenance	\$ -	459,000	1,483,000	102,000	102,000	102,000	-	-	-	-	-
JGM Finished Water Pump Station Asset Maintenance	\$ -	60,600	543,400	-	-	-	-	-	-	-	-
STWTP Finished Water Pump Station Asset Maintenance	\$ -	-	60,600	543,400	-	-	-	-	-	-	-
JGM Reservoirs Asset Maintenance & Improvements	\$ -	-	180,000	1,191,000	-	-	-	-	-	-	-
STWTP Reservoirs Asset Maintenance & Improvements	\$ -	440,000	964,000	1,870,000	1,870,000	1,245,000	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
Master Plan Implementation	\$ -	280,000	-	-	-	-	-	-	-	-	-
Tempe Town Lake Wells Integration	\$ -	441,000	-	-	-	-	-	-	-	-	-
Well Remote Control Upgrades (2 Per Year)	\$ -	377,000	377,000	377,000	377,000	377,000	-	-	-	-	-
SCADA Hardware & Software Replacement	\$ -	-	250,000	-	-	250,000	-	-	-	-	-
Field Site Communications Upgrades	\$ -	65,000	65,000	65,000	65,000	65,000	-	-	-	-	-
WUD Security Asset Maintenance	\$ -	190,000	190,000	190,000	-	-	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
Well Asset Maintenance and Rehabilitation	\$ -	1,226,126	1,376,839	1,376,839	1,376,839	373,357	-	-	-	-	-
Well 16 Equipping	\$ -	500,000	-	-	-	-	-	-	-	-	-
Future Wells	\$ -	100,000	1,602,000	2,544,600	737,400	1,602,000	-	-	-	-	-
Well 11 Permit Capacity Increase and Re-Equipping	\$ -	-	-	550,550	1,022,450	-	-	-	-	-	-
Well 10 Site Expansion & Equipping	\$ -	100,000	247,000	2,264,000	-	-	-	-	-	-	-
SRP Partner Wells	\$ -	50,000	62,000	566,000	-	-	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
Automated Meter Reading System	\$ -	3,532,661	1,495,616	-	-	-	-	-	-	-	-
Meter Replacement Program	\$ -	4,238,932	4,200,000	400,000	200,000	200,000	-	-	-	-	-
WUD Buildings Asset Mgmt.	\$ -	339,382	383,168	806,742	10,000	-	-	-	-	-	-
Field Sites Buiding Remodel	\$ -	100,000	-	-	-	-	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
CAP Water Lease - WMAT Quantification Settlement Agreement	\$ -	3,117,758	779,439	779,439	779,439	779,439	-	-	-	-	-
Unspecified Future Projects	\$ -	-	-	-	-	-	-	34,396,246	34,396,246	34,396,246	34,396,246

Project Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Current Year Placeholder	\$ 30,100,000	-	-	-	-	-	-	-	-	-	-
Flood Irrigation Infrastructure Asset Maintenance - 3205899	\$ -	-	-	-	-	-	-	-	-	-	-
Alley W of Mill - Univ. to 13th St.	\$ -	134,437	-	-	-	-	-	-	-	-	-
Parkway Blvd West of College Ave.	\$ -	472,000	-	-	-	-	-	-	-	-	-
Wilson @ 9th St.	\$ -	200,000	51,000	-	-	-	-	-	-	-	-
Ash 13th to 9th Alley	\$ -	-	200,000	251,800	-	-	-	-	-	-	-
Ash/Maple Alley 13th to 9th	\$ -	-	-	45,000	396,760	-	-	-	-	-	-
Maple 13th to 9th Alley	\$ -	-	-	-	45,000	416,840	-	-	-	-	-
Parkway Blvd. East of College	\$ -	-	-	-	-	13,000	-	-	-	-	-
Hudson Manor	\$ -	-	-	-	-	10,000	-	-	-	-	-
Wilson Street - University to 10th Street	\$ -	-	-	-	-	10,000	-	-	-	-	-
Hudson Manor, in alleys @ Cedar and Williams Streets.	\$ -	-	-	-	-	30,000	-	-	-	-	-
Future Projects	\$ -	-	-	-	-	-	-	-	-	-	-
Total Capital Improvement Program	\$ 30,100,000	\$ 46,002,926	\$ 37,861,782	\$ 35,438,732	\$ 31,700,317	\$ 25,273,720	\$ 34,396,246				
Cumulative Projected Cost Escalation	0.0%	0.0%	3.0%	6.1%	9.3%	12.6%	15.9%	19.4%	23.0%	26.7%	30.5%
Resulting CIP Funding Level	\$ 30,100,000	\$ 46,002,926	\$ 38,997,635	\$ 37,600,495	\$ 34,648,446	\$ 28,458,209	\$ 39,865,249	\$ 41,069,118	\$ 42,307,383	\$ 43,580,044	\$ 44,887,101
Annual CIP Execution Percentage	100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Final CIP Funding Level	\$ 30,100,000	\$ 41,402,633	\$ 35,097,872	\$ 33,840,445	\$ 31,183,602	\$ 25,612,388	\$ 35,878,724	\$ 36,962,206	\$ 38,076,645	\$ 39,222,040	\$ 40,398,391

Schedule 6- Cash Out

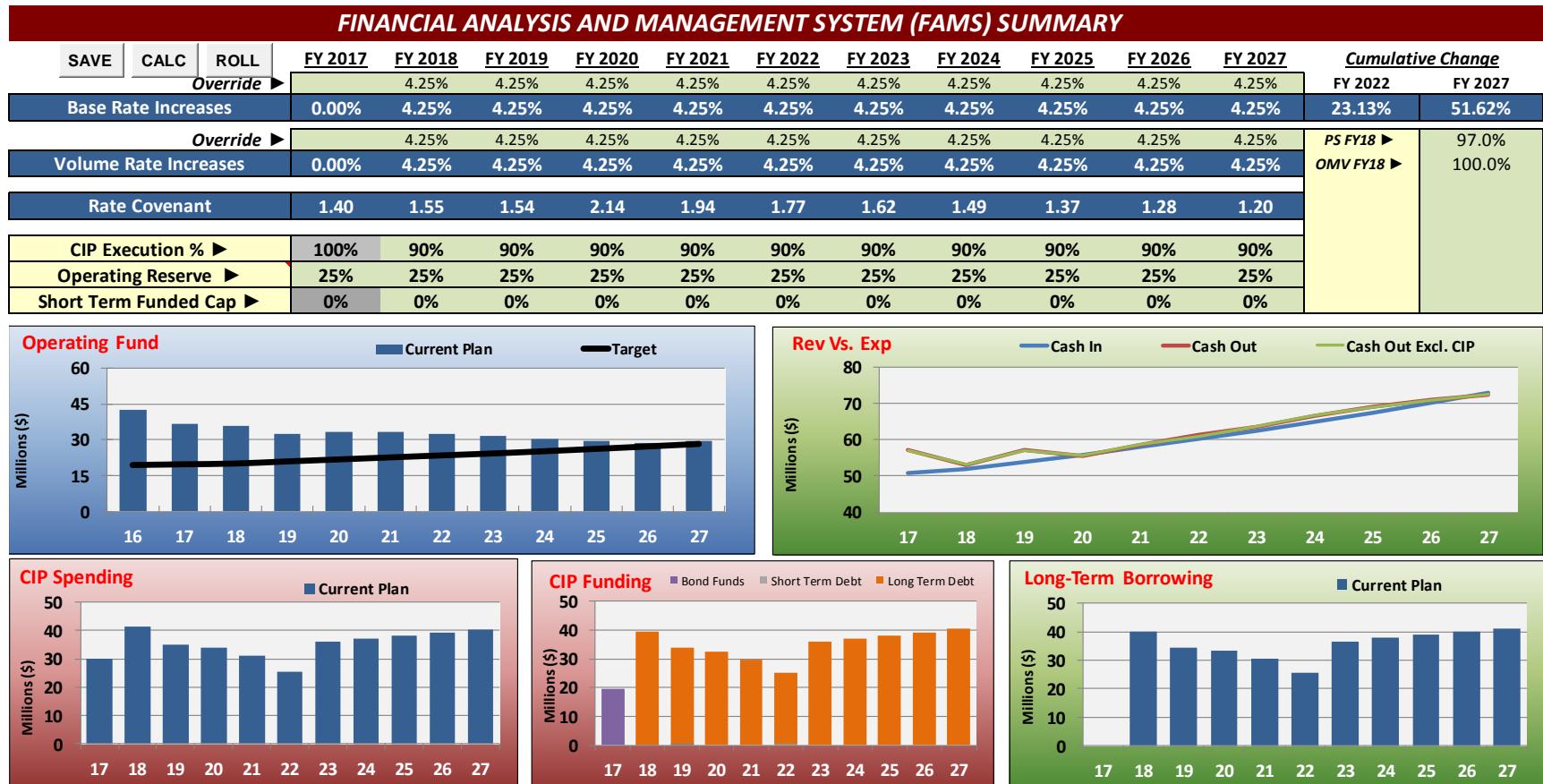
Water & Sewer Rate Study

Account	Dept		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	
626	8301	3052	Technology Costs	\$ 14,413	\$ 11,559	\$ 11,790	\$ 12,026	\$ 12,267	\$ 12,512	\$ 12,762	\$ 13,017	\$ 13,278	\$ 13,543	\$ 13,814
627	8303	3052	Vehicle Maintenance Cost	\$ 4,300	\$ 2,901	\$ 2,959	\$ 3,018	\$ 3,079	\$ 3,140	\$ 3,203	\$ 3,267	\$ 3,332	\$ 3,399	\$ 3,467
628	8306	3052	Vehicle Fuel/Oil Costs	\$ 1,240	\$ 1,669	\$ 1,702	\$ 1,736	\$ 1,771	\$ 1,807	\$ 1,843	\$ 1,880	\$ 1,917	\$ 1,955	\$ 1,995
629	8307	3052	Telephone Costs	\$ 347	\$ 630	\$ 643	\$ 655	\$ 669	\$ 682	\$ 696	\$ 709	\$ 724	\$ 738	\$ 753
630	6721	3052	Multifamily Rebates	\$ 35,000	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804
631	6722	3052	Personalized Home Water Report	\$ 10,000	\$ 10,000	\$ 10,200	\$ 10,404	\$ 10,612	\$ 10,824	\$ 11,041	\$ 11,262	\$ 11,487	\$ 11,717	\$ 11,951
632	6723	3052	Indust/Comm Landscape Rebate	\$ 35,000	\$ 40,000	\$ 40,800	\$ 41,616	\$ 42,448	\$ 43,297	\$ 44,163	\$ 45,046	\$ 45,947	\$ 46,866	\$ 47,804
633	6724	3052	Neighborhood Grants	\$ 30,000	\$ 30,000	\$ 30,600	\$ 31,212	\$ 31,836	\$ 32,473	\$ 33,122	\$ 33,785	\$ 34,461	\$ 35,150	\$ 35,853
634	6725	3052	Parks Irrig Syst Efficiencies	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
635	6726	3052	Industrial Grants	\$ 50,000	\$ 50,000	\$ 51,000	\$ 52,020	\$ 53,060	\$ 54,122	\$ 55,204	\$ 56,308	\$ 57,434	\$ 58,583	\$ 59,755
636	8309	3118	Support Services Charges	\$ 133,283	\$ 142,273	\$ 145,118	\$ 148,020	\$ 150,981	\$ 154,000	\$ 157,080	\$ 160,222	\$ 163,426	\$ 166,695	\$ 170,029
637	8003	4141	Fiscal Agent Fees	\$ 229,251	\$ 500,000	\$ 510,000	\$ 520,200	\$ 530,604	\$ 541,216	\$ 552,040	\$ 563,081	\$ 574,343	\$ 585,830	\$ 597,546
638			Distribution System Vehicles	\$ -	\$ 300,000	\$ 307,500	\$ 315,188	\$ 323,067	\$ 331,144	\$ 339,422	\$ 347,908	\$ 356,600	\$ 365,521	
639			SUBTOTAL	\$ 13,632,612	\$ 14,463,822	\$ 15,110,440	\$ 15,412,897	\$ 16,015,724	\$ 16,092,573	\$ 16,442,060	\$ 16,790,747	\$ 17,151,309	\$ 17,451,630	\$ 17,808,149
			Transfers Out											
640			Interfund Transfer	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800	\$ 235,800
641			Household Products Collection Center	\$ 100,000	\$ 100,000	\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763	\$ 226,282	\$ 231,939	\$ 237,737	\$ 243,681
642			CIP Transfer To	\$ 3,117,758										
643			SUBTOTAL	\$ 3,453,558	\$ 335,800	\$ 435,800	\$ 440,800	\$ 445,925	\$ 451,178	\$ 456,563	\$ 462,082	\$ 467,739	\$ 473,537	\$ 479,481
			Debt Service											
644	2,006			\$ 83,161	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
645	2007A			\$ 2,202,675	\$ 2,106,225	\$ 44,433	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
646	2007R			\$ 315,817	\$ 302,828	\$ 7,043	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
647	2008A			\$ 1,775,525	\$ 1,447,495	\$ 1,460,044	\$ 30,018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
648	2009GO			\$ 578,003	\$ 474,673	\$ 475,781	\$ 477,969	\$ 9,026	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
649	2009 Excise			\$ 675,441	\$ 637,243	\$ 639,086	\$ 639,906	\$ 163,749	\$ 152,405	\$ 152,401	\$ 693,941	\$ 704,386	\$ 705,659	\$ 705,950
650	2009 WIFA Loans			\$ 994,203	\$ 994,373	\$ 994,546	\$ 994,723	\$ 994,904	\$ 995,089	\$ 995,279	\$ 995,472	\$ 995,670	\$ 995,873	\$ 996,080
651	2010A&B GO Bonds			\$ 857,379	\$ 859,379	\$ 861,584	\$ 861,584	\$ 859,757	\$ 859,138	\$ 858,098	\$ 859,224	\$ 861,080	\$ 861,639	\$ 862,581
652	2010C GO Bonds			\$ 2,741,991	\$ 2,757,281	\$ 2,561,319	\$ 2,561,075	\$ 1,708,561	\$ 1,076,543	\$ 19,965	\$ -	\$ -	\$ -	\$ -
653	2011 Excise Tax Bonds			\$ 1,348,961	\$ 1,065,838	\$ 1,062,896	\$ 1,067,300	\$ 1,072,013	\$ 1,067,950	\$ 24,863	\$ -	\$ -	\$ -	\$ -
654	2012 Excise Tax Bonds			\$ 563,995	\$ 561,720	\$ 562,039	\$ 564,883	\$ 562,380	\$ 563,631	\$ 564,086	\$ 563,631	\$ 566,816	\$ 564,428	\$ 560,879
655	2012B GO Bonds			\$ 59,316	\$ 59,316	\$ 59,316	\$ 649,066	\$ 660,494	\$ 671,764	\$ 11,178	\$ -	\$ -	\$ -	\$ -
656	2013 Excise Tax Bonds			\$ 1,834,359	\$ 1,827,274	\$ 1,824,823	\$ 1,837,799	\$ 1,839,390	\$ 1,843,045	\$ 1,844,335	\$ 1,847,345	\$ 1,847,667	\$ 1,849,495	\$ 1,848,420
657	2013B GO Bonds			\$ 1,372,387	\$ 1,380,611	\$ 2,639,406	\$ 2,673,027	\$ 2,682,015	\$ 1,576,239	\$ 436,853	\$ 420,252	\$ 7,938	\$ -	\$ -
658	2014B GO Bonds			\$ 345,462	\$ 1,342,933	\$ 86,645	\$ 62,094	\$ 62,092	\$ 62,092	\$ 1,614,303	\$ 30,960	\$ -	\$ -	\$ -
659	2014C GO Bonds			\$ 644,441	\$ 644,441	\$ 2,524,441	\$ 2,550,291	\$ 2,560,960	\$ 3,803,405	\$ 3,845,423	\$ 5,604,691	\$ 106,784	\$ -	\$ -
660	2015 Excise Tax			\$ 1,204,518	\$ 10,780	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
661	2016 Excise Tax			\$ 4,932,389	\$ 5,539,786	\$ 5,585,266	\$ 770,805	\$ 1,348,066	\$ 1,363,894	\$ 2,332,290	\$ 1,555,047	\$ 1,533,276	\$ 1,504,081	\$ 1,503,637
662	2016B GO Bonds			\$ 1,857,858	\$ 971,411	\$ 957,975	\$ 2,383,675	\$ 2,864,968	\$ 2,881,849	\$ 2,898,570	\$ 2,931,059	\$ 7,337,214	\$ 5,432,182	\$ 2,767,077
663	GO Bonds 2017			\$ -	\$ 171,079	\$ 403,822	\$ 407,820	\$ 401,982	\$ 395,556	\$ 389,340	\$ 381,654	\$ 374,976	\$ 366,744	\$ 359,436
664			SUBTOTAL	\$ 24,387,880	\$ 23,154,684	\$ 22,750,464	\$ 17,940,454	\$ 17,778,308	\$ 17,300,289	\$ 16,648,697	\$ 15,894,460	\$ 14,335,807	\$ 12,280,100	\$ 9,604,058
			Summary of Expenditures by Type											
665	Total Personnel Services Expense Projection			\$ 11,347,822	\$ 11,082,161	\$ 11,404,664	\$ 11,918,081	\$ 12,270,593	\$ 12,638,692	\$ 13,023,329	\$ 13,425,523	\$ 13,846,367	\$ 14,287,038	\$ 14,748,798
666	Execution Percentage			100%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
667	Net Personnel Services Expense Forecast			\$ 11,347,822	\$ 10,749,696	\$ 11,062,524	\$ 11,560,539	\$ 11,902,475	\$ 12,259,531	\$ 12,632,629	\$ 13,022,757	\$ 13,430,976	\$ 13,858,427	\$ 14,306,334
668	Total Variable O&M Expense Projection			\$ 4,318,146	\$ 4,614,853	\$ 5,335,819	\$ 5,505,371	\$ 5,648,466	\$ 5,751,183	\$ 5,936,090	\$ 6,143,694	\$ 6,378,337	\$ 6,645,240	\$ 6,950,684
669	Execution Percentage			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
670	Net Variable O&M Expense Forecast			\$ 4,318,146	\$ 4,614,853	\$ 5,335,819	\$ 5,505,371	\$ 5,648,466	\$ 5,751,183	\$ 5,936,090	\$ 6,143,694	\$ 6,378,337	\$ 6,645,240	\$ 6,950,684
671	Total Fixed O&M Expense Projection			\$ 13,632,612	\$ 14,463,822	\$ 15,110,440	\$ 15,412,897	\$ 16,015,724	\$ 16,092,573	\$ 16,442,060	\$ 16,790,747	\$ 17,151,309	\$ 17,451,630	\$ 17,808,149
672	Execution Percentage			100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
673	Net Fixed O&M Expense Forecast			\$ 13,632,612	\$ 13,017,440	\$ 13,599,396	\$ 13,871,607	\$ 14,414,152	\$ 14,483,316	\$ 14,797,854	\$ 15,111,672	\$ 15,436,178	\$ 15,706,467	\$ 16,027,334
674	Total Minor Capital Outlay Expense Projection			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
675	Execution Percentage			100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
676	Net Minor Capital Outlay Expense Forecast			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
677	Transfers Out			\$ 3,453,558	\$ 335,800	\$ 435,800	\$ 440,800	\$ 445,925	\$ 451,178	\$ 456,563	\$ 462,082	\$ 467,739	\$ 473,537	\$ 479,481
678	Annual Debt Service			\$ 24,387,880	\$ 23,154,684	\$ 22,750,464	\$ 17,940,454	\$ 17,778,308	\$ 17,300,289	\$ 16,648,697	\$ 15,894,460	\$ 14,335,807	\$ 12,280,100	\$ 9,604,058
	TOTAL CASH OUTFLOWS			\$ 57,140,018	\$ 51,872,472	\$ 53,184,002	\$ 49,318,771	\$ 50,189,325	\$ 50,245,497	\$ 50,471,832	\$ 50,634,665	\$ 50,049,037	\$ 48,963,771	\$ 47,367,890

Schedule 7- Cash In

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue Growth Assumptions											
1 Base Accounts/Customers	N/A	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%	0.46%
2 Volume Use	N/A	-0.21%	-0.19%	-0.17%	-0.14%	-0.12%	-0.10%	-0.07%	-0.05%	-0.03%	0.00%
3 Assumed Rate Revenue Increases											
4 Assumed Base Rate Increases	N/A	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
5 Assumed Volume Rate Increases	N/A	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%	4.25%
6 Rate Revenue											
7 Base Rate Revenue	\$ 10,686,137	10,964,852	11,483,006	12,024,988	12,594,025	13,189,267	13,812,678	14,464,761	15,149,403	15,865,581	16,615,657
8 Volumetric Revenue	\$ 38,373,000	38,946,241	40,356,210	41,824,314	43,360,711	44,961,303	46,631,779	48,372,827	50,196,423	52,098,073	54,084,617
9 Irrigation Revenue	\$ -	-	-	-	-	-	-	-	-	-	-
10 Total Rate Revenue	\$ 49,059,137	\$ 49,911,093	\$ 51,839,216	\$ 53,849,302	\$ 55,954,736	\$ 58,150,570	\$ 60,444,457	\$ 62,837,588	\$ 65,345,826	\$ 67,963,654	\$ 70,700,274
11 Other Operating Revenue											
12 Inspection Fee	\$ 3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
13 NSF Check/CC Return Fees	\$ 3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500
14 Delinquent Collection Ch	\$ 478,614	480,544	499,123	518,516	538,781	559,941	582,046	605,135	629,279	654,507	680,880
15 Fire Hydrant Meters	\$ 12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
16 Meters	\$ 25,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
17 Installation Charges	\$ 2,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
18 Taps & Manholes-Water	\$ 9,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000
19 Reconnect Fee	\$ 50,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000
20 Turn on Fees	\$ 150,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000
21 Recovery of Write-Offs	\$ 13,570	-	-	-	-	-	-	-	-	-	-
22 Recovery of PY Expend/Reve	\$ 30	-	-	-	-	-	-	-	-	-	-
23 Proceeds on Sale of Assets	\$ 65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
24 Proceeds on Sale of Assets	\$ 15,000	-	-	-	-	-	-	-	-	-	-
25 Recycle/Scrap Material Rev	\$ 23,989	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
26 Recovery of PY Expend/Reve	\$ 872	-	-	-	-	-	-	-	-	-	-
27 Irrigation Billings	\$ 247,059	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
28 Inspection Fee	\$ 7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
29 Environmental Fines	\$ -	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
30 Inspection Fee	\$ 7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500
30 Vehicle Salvage	\$ -	8,656	19,335	19,014	45,991	23,249	26,897	28,788	31,231	27,541	28,614
31 Total Other Operating Revenues	\$ 1,114,134	\$ 1,220,199	\$ 1,249,458	\$ 1,268,529	\$ 1,315,772	\$ 1,314,190	\$ 1,339,943	\$ 1,364,922	\$ 1,391,510	\$ 1,413,048	\$ 1,440,494
32 Non-Operating Revenue											
33 System Development Fee	\$ 468,054	470,188	472,333	474,489	476,656	478,835	481,024	483,224	485,436	487,659	489,894
34 Interest Income	\$ 297,588	362,356	427,525	494,689	498,341	492,657	482,824	467,607	449,214	436,958	438,817
35 Total Non-Operating Revenues	\$ 765,642	\$ 832,544	\$ 899,858	\$ 969,178	\$ 974,997	\$ 971,492	\$ 963,848	\$ 950,831	\$ 934,650	\$ 924,617	\$ 928,711
36 Transfers											
36 Golf Fund Loan Payback (\$2.5M)	\$ 182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406
37 CIP Transfer To	\$ 3,117,758	-	-	-	-	-	-	-	-	-	-
38 Total Transfers	\$ 3,300,164	\$ 182,406									
39 Total Revenue	\$ 54,239,077	\$ 52,146,243	\$ 54,170,938	\$ 56,269,415	\$ 58,427,912	\$ 60,618,658	\$ 62,930,654	\$ 65,335,748	\$ 67,854,393	\$ 70,483,725	\$ 73,251,884



	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Total Rate Revenue											
1 Base And Volume Rate Revenue	\$ 49,059,137	49,059,137	49,911,093	51,839,216	53,849,302	55,954,736	58,150,570	60,444,457	62,837,588	65,345,826	67,963,654
2 Additional Rate Revenue From Partial Py Rate Increase	\$ -	-	1,033,259	1,073,167	1,117,931	1,158,348	1,203,797	1,251,274	1,304,493	1,352,719	1,406,901
3 Additional Revenue From Growth	\$ -	(32,201)	(23,845)	(14,786)	(4,975)	5,638	17,107	29,491	42,850	57,250	72,760
4 Weather Normalization And Other Adjustments	\$ -	-	-	-	-	-	-	-	-	-	-
4 Subtotal: Base Revenue With Growth	\$ 49,059,137	49,026,936	50,920,507	52,897,597	54,962,258	57,118,722	59,371,474	61,725,222	64,184,932	66,755,796	69,443,315
5 Weighted Average Rate Increase	0.00%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%	2.14%
6 Additional Rate Revenue From Rate Increase	\$ -	1,050,385	1,090,954	1,130,216	1,177,548	1,223,749	1,272,014	1,318,829	1,375,140	1,430,220	1,487,799
7 Price Elasticity Adjustment	\$ -	(166,228)	(172,246)	(178,512)	(185,070)	(191,901)	(199,031)	(206,462)	(214,245)	(222,362)	(230,841)
8 Total Rate Revenue	\$ 49,059,137	49,911,093	51,839,216	53,849,302	55,954,736	58,150,570	60,444,457	62,837,588	65,345,826	67,963,654	70,700,274
9 Plus: Other Operating Revenue	\$ 1,114,134	1,220,199	1,249,458	1,268,529	1,315,772	1,314,190	1,339,943	1,364,922	1,391,510	1,413,048	1,440,494
10 Equals: Total Operating Revenue	\$ 50,173,271	51,131,293	53,088,674	55,117,831	57,270,508	59,464,760	61,784,400	64,202,511	66,737,337	69,376,702	72,140,768
11 Less: Operating Expenses	-2.96%	5.52%	3.14%	2.47%	2.35%	2.62%	2.69%	2.77%	2.86%	2.96%	
12 Personal Services	\$ (11,347,822)	(10,749,696)	(11,062,524)	(11,560,539)	(11,902,475)	(12,259,531)	(12,632,629)	(13,022,757)	(13,430,976)	(13,858,427)	(14,306,334)
13 Variable O&M	\$ (4,318,146)	(4,614,853)	(5,335,819)	(5,505,371)	(5,648,466)	(5,751,183)	(5,936,090)	(6,143,694)	(6,378,337)	(6,645,240)	(6,950,684)
14 O&M	\$ (13,525,112)	(12,963,860)	(13,493,137)	(13,764,350)	(14,041,021)	(14,323,260)	(14,611,179)	(14,904,892)	(15,204,518)	(15,510,173)	(15,821,982)
15 Equals: Net Operating Income	\$ 20,982,191	22,802,884	23,197,193	24,287,571	25,678,547	27,130,786	28,604,503	30,131,168	31,723,506	33,362,861	35,061,768
Plus: Non-Operating Income/(Expense)											
16 Non-Operating Revenue	\$ 468,054	470,188	472,333	474,489	476,656	478,835	481,024	483,224	485,436	487,659	489,894
17 Interest Income	\$ 297,588	362,356	427,525	494,689	498,341	492,657	482,824	467,607	449,214	436,958	438,817
19 Transfers In	\$ 182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406	182,406
19 Equals: Net Income	\$ 25,047,997	23,817,834	24,279,458	25,439,155	26,835,951	28,284,684	29,750,757	31,264,405	32,840,562	34,469,885	36,172,885
Less: Revenues Excluded From Coverage Test											
20 Other Capital Funding Sources	\$ (3,117,758)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
21 Transfer In	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)	\$ (182,406)
22 Equals: Net Income Available For Debt Service	\$ 21,747,833	\$ 23,635,428	\$ 24,097,052	\$ 25,256,749	\$ 26,653,545	\$ 28,102,278	\$ 29,568,351	\$ 31,081,999	\$ 32,658,156	\$ 34,287,479	\$ 35,990,479
Debt Service Coverage Test											
23 Net Income Available For Debt Service	\$ 21,747,833	\$ 23,635,428	\$ 24,097,052	\$ 25,256,749	\$ 26,653,545	\$ 28,102,278	\$ 29,568,351	\$ 31,081,999	\$ 32,658,156	\$ 34,287,479	\$ 35,990,479
24 Existing Debt Service	\$ 15,514,844	\$ 13,973,862	\$ 11,661,410	\$ 5,388,678	\$ 4,994,622	\$ 4,990,925	\$ 4,917,974	\$ 4,659,964	\$ 4,652,145	\$ 4,623,662	\$ 4,618,884
25 Cumulative New Debt Service	\$ -	\$ 1,301,719	\$ 3,954,243	\$ 6,410,670	\$ 8,771,967	\$ 10,877,473	\$ 13,359,010	\$ 16,223,269	\$ 19,173,945	\$ 22,213,463	\$ 25,344,254
26 Total Conventional Debt Service	\$ 15,514,844	\$ 15,275,581	\$ 15,615,653	\$ 11,799,348	\$ 13,766,589	\$ 15,868,398	\$ 18,276,983	\$ 20,883,233	\$ 23,826,089	\$ 26,837,125	\$ 29,963,139
27 Calculated Debt Service Coverage	1.00	1.40	1.55	1.54	2.14	1.94	1.77	1.62	1.49	1.37	1.28
28 Prior Year Net Income Available For Ds (Adj. For Cy Ri)	\$ 21,747,833	\$ 22,213,773	\$ 24,141,809	\$ 24,611,912	\$ 25,797,867	\$ 27,224,588	\$ 28,704,360	\$ 30,200,112	\$ 31,747,920	\$ 33,357,846	\$ 35,022,076
29 Net Income Available For Debt Service	\$ 21,747,833	\$ 23,635,428	\$ 24,097,052	\$ 25,256,749	\$ 26,653,545	\$ 28,102,278	\$ 29,568,351	\$ 31,081,999	\$ 32,658,156	\$ 34,287,479	\$ 35,990,479
30 Less: Total Conventional Debt Service & Coverage	\$ (15,359,695)	\$ (15,122,825)	\$ (15,459,497)	\$ (11,681,355)	\$ (13,628,923)	\$ (15,709,714)	\$ (18,094,214)	\$ (20,674,401)	\$ (23,587,828)	\$ (26,568,754)	\$ (29,663,507)
31 Equals: Net Income Available For Subordinate Debt Service	\$ 6,388,138	\$ 8,512,603	\$ 8,637,555	\$ 13,575,395	\$ 13,024,622	\$ 12,392,564	\$ 11,474,137	\$ 10,407,598	\$ 9,070,328	\$ 7,718,725	\$ 6,326,972
32 Subordinate											
32 Total Subordinate Debt Service	\$ 8,873,036	\$ 9,180,822	\$ 11,089,053	\$ 12,551,776	\$ 12,783,686	\$ 12,309,364	\$ 11,730,723	\$ 11,234,496	\$ 9,683,662	\$ 7,656,438	\$ 4,985,173
33 Calculated Subordinate Debt Coverage (Line 117/Line 119)	1.00	0.72	0.93	0.78	1.08	1.02	1.01	0.98	0.93	0.94	1.01
Cash Flow Test											
34 Net Income Available For Debt Service	\$ 21,747,833	\$ 23,635,428	\$ 24,097,052	\$ 25,256,749	\$ 26,653,545	\$ 28,102,278	\$ 29,568,351	\$ 31,081,999	\$ 32,658,156	\$ 34,287,479	\$ 35,990,479
35 Less: Non-Operating Expenditures											
35 Net Interfund Transfers (In - Out)	\$ (3,271,152)	\$ (153,394)	\$ (253,394)	\$ (258,394)	\$ (263,519)	\$ (268,772)	\$ (274,157)	\$ (279,676)	\$ (285,333)	\$ (291,131)	\$ (297,075)
36 Net Debt Service Payment (Debt Service - System Development Fees Payment)	\$ (24,387,880)	\$ (24,456,403)	\$ (26,704,706)	\$ (24,351,124)	\$ (26,550,274)	\$ (28,177,761)	\$ (30,007,706)	\$ (32,117,729)	\$ (33,509,751)	\$ (34,493,563)	\$ (34,948,312)
37 Net Cash Flow	\$ (5,911,199)	\$ (974,369)	\$ (2,861,049)	\$ 647,232	\$ (160,249)	\$ (344,255)	\$ (713,512)	\$ (1,315,406)	\$ (1,136,927)	\$ (497,216)	\$ 745,093
Unrestricted Reserve Fund Test											
38 Unrestricted Working Capital Reserve Fund											
38 Balance At Beginning Of Fiscal Year	\$ 42,634,000	\$ 36,722,801	\$ 35,748,432	\$ 32,655,633	\$ 33,302,865	\$ 33,142,616	\$ 32,545,011	\$ 31,831,499	\$ 30,516,093	\$ 29,379,165	\$ 28,881,950
39 Cash Flow Surplus/(Deficit)	\$ -	\$ -	\$ -	\$ -	\$ 647,232	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 745,093
40 Reserve Fund Balance Used For Cash Flow Deficit	\$ (5,911,199)	\$ (974,369)	\$ (2,861,049)	\$ -	\$ (160,249)	\$ (344,255)	\$ (713,512)	\$ (1,315,406)	\$ (1,136,927)	\$ (497,216)	\$ -
41 Projects Designated To Be Paid With Cash	\$ -	\$ -	\$ -	\$ (231,750)	\$ -	\$ (253,350)	\$ -	\$ -	\$ -	\$ -	\$ -
42 Balance At End Of Fiscal Year	\$ 36,722,801	\$ 35,748,432	\$ 32,655,633	\$ 33,302,865	\$ 33,142,616	\$ 32,545,011	\$ 31,831,499	\$ 30,516,093	\$ 29,379,165	\$ 28,881,950	\$ 29,627,043
43 Minimum Working Capital Reserve Target	\$ 19,695,859	\$ 20,015,325	\$ 20,909,203	\$ 21,758,304	\$ 22,623,697	\$ 23,473,199	\$ 24,297,818	\$ 25,250,077	\$ 26,239,975	\$ 27,267,455	\$ 28,336,933
44 Excess/(Deficiency) Of Working Capital To Target	\$ 17,026,942	\$ 15,733,107	\$ 11,746,430	\$ 11,544,561	\$ 10,518,919	\$ 9,071,812	\$ 7,533,680	\$ 5,266,016	\$ 3,139,191	\$ 1,614,495	\$ 1,290,109

FINAL CAPITAL PROJECTS FUNDING SOURCES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
System Development Fee	\$ -	1,103,513	1,276,330	1,314,744	1,354,397	378,360	-	-	-	-	-
Bond Proceeds Fund	\$ 19,488,000	73,080	365	2	0	0	0	0	0	0	0
Capital Fund	\$ 10,612,000	974,191	4,871	30	0	0	0	0	0	0	0
Debt Proceeds	\$ -	39,251,849	33,584,556	32,525,669	29,829,205	24,980,678	35,878,724	36,962,206	38,076,645	39,222,040	40,398,391
Projects Designated To Be Paid With Cash	\$ -	-	231,750	-	-	253,350	-	-	-	-	-
Total Projects Paid	\$ 30,100,000	41,402,633	35,097,872	33,840,445	31,183,602	25,612,388	35,878,724	36,962,206	38,076,645	39,222,040	40,398,391
Total Clp Input	\$ 30,100,000	41,402,633	35,097,872	33,840,445	31,183,602	25,612,388	35,878,724	36,962,206	38,076,645	39,222,040	40,398,391
Variance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule 11- Detailed Funding Summary

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
1 SYSTEM DEVELOPMENT FEE											
2 Balance At Beginning Of Fiscal Year	\$ 6,352,713	6,400,358	5,355,331	4,137,966	2,875,431	1,554,008	1,196,121	1,214,062	1,232,273	1,250,758	1,269,519
3 Additional Annual Revenues	\$ -	-	-	-	-	-	-	-	-	-	-
4 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
5 Subtotal	\$ 6,352,713	6,400,358	5,355,331	4,137,966	2,875,431	1,554,008	1,196,121	1,214,062	1,232,273	1,250,758	1,269,519
6 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
7 Total Amount Available For Projects	\$ 6,352,713	6,400,358	5,355,331	4,137,966	2,875,431	1,554,008	1,196,121	1,214,062	1,232,273	1,250,758	1,269,519
8 Amount Paid For Projects	\$ -	(1,103,513)	(1,276,330)	(1,314,744)	(1,354,397)	(378,360)	-	-	-	-	-
9 Subtotal	\$ 6,352,713	5,296,845	4,079,001	2,823,222	1,521,035	1,175,648	1,196,121	1,214,062	1,232,273	1,250,758	1,269,519
10 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
11 Plus: Interest Earnings	\$ 47,645	58,486	58,965	52,209	32,973	20,472	17,942	18,211	18,484	18,761	19,043
12 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
13 Balance At End Of Fiscal Year	\$ 6,400,358	5,355,331	4,137,966	2,875,431	1,554,008	1,196,121	1,214,062	1,232,273	1,250,758	1,269,519	1,288,562
53 BOND PROCEEDS FUND											
54 Balance At Beginning Of Fiscal Year	\$ 19,488,000	73,080	365	2	0	0	0	0	0	0	0
55 Additional Annual Revenues	\$ -	-	-	-	-	-	-	-	-	-	-
56 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
57 Subtotal	\$ 19,488,000	73,080	365	2	0	0	0	0	0	0	0
58 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
59 Total Amount Available For Projects	\$ 19,488,000	73,080	365	2	0	0	0	0	0	0	0
60 Amount Paid For Projects	\$ (19,488,000)	(73,080)	(365)	(2)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61 Subtotal	\$ -	-	-	-	-	-	-	-	-	-	-
62 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
63 Plus: Interest Earnings	\$ 73,080	365	2	0	0	0	0	0	0	0	0
64 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
65 Balance At End Of Fiscal Year	\$ 73,080	365	2	0	0	0	0	0	0	0	0
66 CAPITAL FUND											
67 Balance At Beginning Of Fiscal Year	\$ 8,433,287	974,191	4,871	30	0	0	0	0	0	0	0
68 Additional Annual Revenues	\$ 3,117,758	-	-	-	-	-	-	-	-	-	-
69 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
70 Subtotal	\$ 11,551,045	974,191	4,871	30	0	0	0	0	0	0	0
71 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
72 Total Amount Available For Projects	\$ 11,551,045	974,191	4,871	30	0	0	0	0	0	0	0
73 Amount Paid For Projects	\$ (10,612,000)	(974,191)	(4,871)	(30)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
74 Subtotal	\$ 939,045	-	-	-	-	-	-	-	-	-	-
75 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
76 Plus: Interest Earnings	\$ 35,146	4,871	30	0	0	0	0	0	0	0	0
77 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
78 Balance At End Of Fiscal Year	\$ 974,191	4,871	30	0	0	0	0	0	0	0	0
92 REVENUE FUND											
93 Balance At Beginning Of Fiscal Year	\$ 42,634,000	36,722,801	35,748,432	32,655,633	33,302,865	33,142,616	32,545,011	31,831,499	30,516,093	29,379,165	28,881,950
94 Additional Annual Revenues	\$ (5,911,199)	(974,369)	(2,861,049)	647,232	(160,249)	(344,255)	(713,512)	(1,315,406)	(1,136,927)	(497,216)	745,093
95 Less: Cash-Funded Capital Projects	\$ -	-	(231,750)	-	-	(253,350)	-	-	-	-	-
96 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
97 Subtotal	\$ 36,722,801	35,748,432	32,655,633	33,302,865	33,142,616	32,545,011	31,831,499	30,516,093	29,379,165	28,881,950	29,627,043
98 Less: Restricted Funds	\$ (19,787,597)	(20,112,583)	(21,004,328)	(21,854,048)	(22,713,239)	(23,568,970)	(24,393,225)	(25,345,561)	(26,335,401)	(27,364,360)	(28,434,128)
99 Total Amount Available For Projects	\$ 16,935,203	15,635,849	11,651,305	11,448,817	10,429,378	8,976,041	7,438,273	5,170,532	3,043,764	1,517,590	1,192,914
100 Amount Paid For Projects	\$ -	-	-	-	-	-	-	-	-	-	-
101 Subtotal	\$ 16,935,203	15,635,849	11,651,305	11,448,817	10,429,378	8,976,041	7,438,273	5,170,532	3,043,764	1,517,590	1,192,914
102 Add Back: Restricted Funds	\$ 19,787,597	20,112,583	21,004,328	21,854,048	22,713,239	23,568,970	24,393,225	25,345,561	26,335,401	27,364,360	28,434,128
103 Plus: Interest Earnings	\$ 297,588	362,356	427,525	494,689	498,341	492,657	482,824	467,607	449,214	436,958	438,817
104 Less: Interest Allocated To Cash Flow	\$ (297,588)	(362,356)	(427,525)	(494,689)	(498,341)	(492,657)	(482,824)	(467,607)	(449,214)	(436,958)	(438,817)
105 Balance At End Of Fiscal Year	\$ 36,722,801	35,748,432	32,655,633	33,302,865	33,142,616	32,545,011	31,831,499	30,516,093	29,379,165	28,881,950	29,627,043

Term (Years)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
	20	20	20	20	20	20	20	20	20	20	20
Interest Rate	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%
Sources of Funds											
Par Amount	\$0	\$40,052,907	\$34,269,955	\$33,189,458	\$30,437,964	\$25,490,488	\$36,610,943	\$37,716,537	\$38,853,719	\$40,022,489	\$41,222,848
Uses of Funds											
Proceeds	\$0	\$39,251,849	\$33,584,556	\$32,525,669	\$29,829,205	\$24,980,678	\$35,878,724	\$36,962,206	\$38,076,645	\$39,222,040	\$40,398,391
Cost of Issuance	0.00% of Par	\$0	\$801,058	\$685,399	\$663,789	\$608,759	\$509,810	\$732,219	\$754,331	\$777,074	\$800,450
Underwriter's Discount	0.00% per \$1,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
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 Surety	0.00% of Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service Reserve	0 Year(s) of Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Uses	\$0	\$40,052,907	\$34,269,955	\$33,189,458	\$30,437,964	\$25,490,488	\$36,610,943	\$37,716,537	\$38,853,719	\$40,022,489	\$41,222,848
1 Year Interest	\$0	\$1,301,719	\$1,199,448	\$1,244,605	\$1,217,519	\$1,083,346	\$1,647,492	\$1,697,244	\$1,748,417	\$1,801,012	\$1,855,028
Annual Debt Service	\$0	\$2,754,794	\$2,411,271	\$2,388,383	\$2,239,679	\$1,917,390	\$2,814,508	\$2,899,502	\$2,986,924	\$3,076,775	\$3,169,054
Total Debt Service	\$0	\$55,095,885	\$48,225,419	\$47,767,660	\$44,793,573	\$38,347,806	\$56,290,163	\$57,990,039	\$59,738,482	\$61,535,493	\$63,381,072
Cumulative New Annual Senior Lien Debt Service	\$0	\$1,301,719	\$3,954,243	\$6,410,670	\$8,771,967	\$10,877,473	\$13,359,010	\$16,223,269	\$19,173,945	\$22,213,463	\$25,344,254

APPENDIX B – SEWER SYSTEM

Supporting Schedules for the Revenue Sufficiency Analysis

Schedule 1- Assumptions

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<u>Annual Unit Growth</u>											
Equivalent Residential Units (ERUs)	71,797	71,925	72,052	72,180	72,309	72,437	72,566	72,695	72,824	72,954	73,083
Growth in ERUs	N/A	128	128	128	128	129	129	129	129	129	130
<i>Percent Increase in ERUs</i>	N/A	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
<u>Annual Volume Growth</u>											
Total (TGAL)	8,481,901	8,483,985	8,486,174	8,488,466	8,490,863	8,493,366	8,495,975	8,498,691	8,501,515	8,504,448	8,507,489
Growth in Volume	N/A	2,085	2,188	2,292	2,397	2,503	2,609	2,716	2,824	2,933	3,042
<i>Percent Increase in Volume</i>	N/A	0.02%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.04%
<u>Capital Spending:</u>											
Annual Capital Budget (Future Year Dollars)	\$4,900,000	\$13,291,328	\$11,773,282	\$15,200,135	\$19,726,538	\$37,343,790	\$8,344,800	\$35,461,800	\$8,856,000	\$9,122,400	\$9,396,000
Annual Percent Executed	100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
<u>Sewer System Development Fee</u>	\$ 1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334	1,334
<u>Average Annual Interest Earnings Rate:</u>											
On Fund Balances:	0.75%	1.00%	1.25%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%
<u>Operating Budget Reserve:</u>											
Target (percent of revenue)	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
<u>Operating Budget Execution Percentage:</u>											
Personal Services	100%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
Variable Operations and Maintenance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Fixed Operations and Maintenance	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

<u>Operating Expense Category</u>	<u>Account Number</u>	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Postage - Exclusion	6713	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Membership + Subs	6716	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Advertising	6751	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Outside Printing/Forms	6753	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Duplicating	6755	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Property Insurance Premium	6802	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Car Wash	6854	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Equipment + Machinery Repa	6856	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Equipment + Machine Rental	6906	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Taxes + Licenses	6990	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Misc. Fees + Services	6999	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Special Projects	7090	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Training + Seminars	7401	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Employee Mileage Expense	7402	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Travel Expense	7403	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Local Meetings	7404	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Motor Vehicles	7508	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Heavy Equipment	7509	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Other Equipment	7511	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Technology Costs	8301	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Vehicle Maintenance Cost	8303	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Worker's Comp Claims	8304	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Communications Costs	8305	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Vehicle Fuel/Oil Costs	8306	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Telephone Costs	8307	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Support Services Charges	8309	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Risk Management Charges	8313	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Charges	8315	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Cr-General	8320	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interactivity Cr-Labor	8321	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Interfund Transfer To	8552	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Loan Repayment	8556	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Default Inflation Factor (if expense not listed above)		2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

SOURCE: 2016 CAFR

FUND TITLE	Balance as of 6/30/2016	Funds Encumbered or Reserved for Projects not in the CIP	Beginning Balance Available for Projects in the CIP
System Development Fees	\$ 1,293,265	0	1,293,265
Bond Proceeds	\$ 3,712,000	0	3,712,000
CIP Fund	\$ 9,230,735	0	9,230,735
Revenue Fund	\$ 27,756,000	0	27,756,000
Restricted Reserves	\$ 0	0	0
Total Consolidated Fund Balance	\$ 41,992,000	-	41,992,000

Schedule 4- Account and Usage Forecast

Water & Sewer Rate Study

Fiscal Year	2015	2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
SFRES													
Total ERUs	35,735	35,757	35,817	35,877	35,937	35,996	36,056	36,117	36,177	36,237	36,297	36,358	36,419
Change		23	60	60	60	60	60	60	60	60	60	60	61
%Change		0.06%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	2,187,286	2,193,290	2,189,622	2,185,960	2,182,305	2,178,656	2,175,012	2,171,375	2,167,744	2,164,119	2,160,501	2,156,888	2,153,281
Consumption per ERU	5.10	5.11	5.09	5.08	5.06	5.04	5.03	5.01	4.99	4.98	4.96	4.94	4.93
Change Per ERU		0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
%Change Per ERU		0.2%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
MFRES													
Total ERUs	13,345	11,394	11,413	11,432	11,451	11,470	11,489	11,508	11,527	11,546	11,566	11,585	11,604
Change		-1,951	19	19	19	19	19	19	19	19	19	19	19
%Change		-14.62%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	1,195,147	1,248,139	1,258,554	1,269,056	1,279,646	1,290,324	1,301,091	1,311,948	1,322,895	1,333,934	1,345,065	1,356,289	1,367,606
Consumption per ERU	7.46	9.13	9.19	9.25	9.31	9.37	9.44	9.50	9.56	9.63	9.69	9.76	9.82
Change Per ERU		1.67	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07
%Change Per ERU		22.3%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
COMM													
Total ERUs	24,165	23,797	23,845	23,893	23,940	23,988	24,036	24,084	24,133	24,181	24,229	24,278	24,326
Change		-368	48	48	48	48	48	48	48	48	48	48	49
%Change		-1.52%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	3,917,868	4,377,906	4,372,040	4,366,181	4,360,331	4,354,488	4,348,653	4,342,825	4,337,006	4,331,195	4,325,391	4,319,595	4,313,806
Consumption per ERU	13.51	15.33	15.28	15.23	15.18	15.13	15.08	15.03	14.98	14.93	14.88	14.83	14.78
Change Per ERU		1.82	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05
%Change Per ERU		13.5%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%	-0.3%
INDUS													
Total ERUs	725	721	722	723	725	726	727	728	729	731	732	733	734
Change		-4	1	1	1	1	1	1	1	1	1	1	1
%Change		-0.60%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%	0.17%
<i>Usage (1,000 gal.)</i>													
Consumption (T Gal)	644,758	660,584	661,685	662,788	663,892	664,999	666,107	667,217	668,329	669,443	670,559	671,676	672,796
Consumption per ERU	74.07	76.35	76.35	76.35	76.35	76.35	76.35	76.35	76.35	76.35	76.35	76.35	76.35
Change Per ERU		2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
%Change Per ERU		3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Schedule 5- Capital Investment Plan

Water & Sewer Rate Study

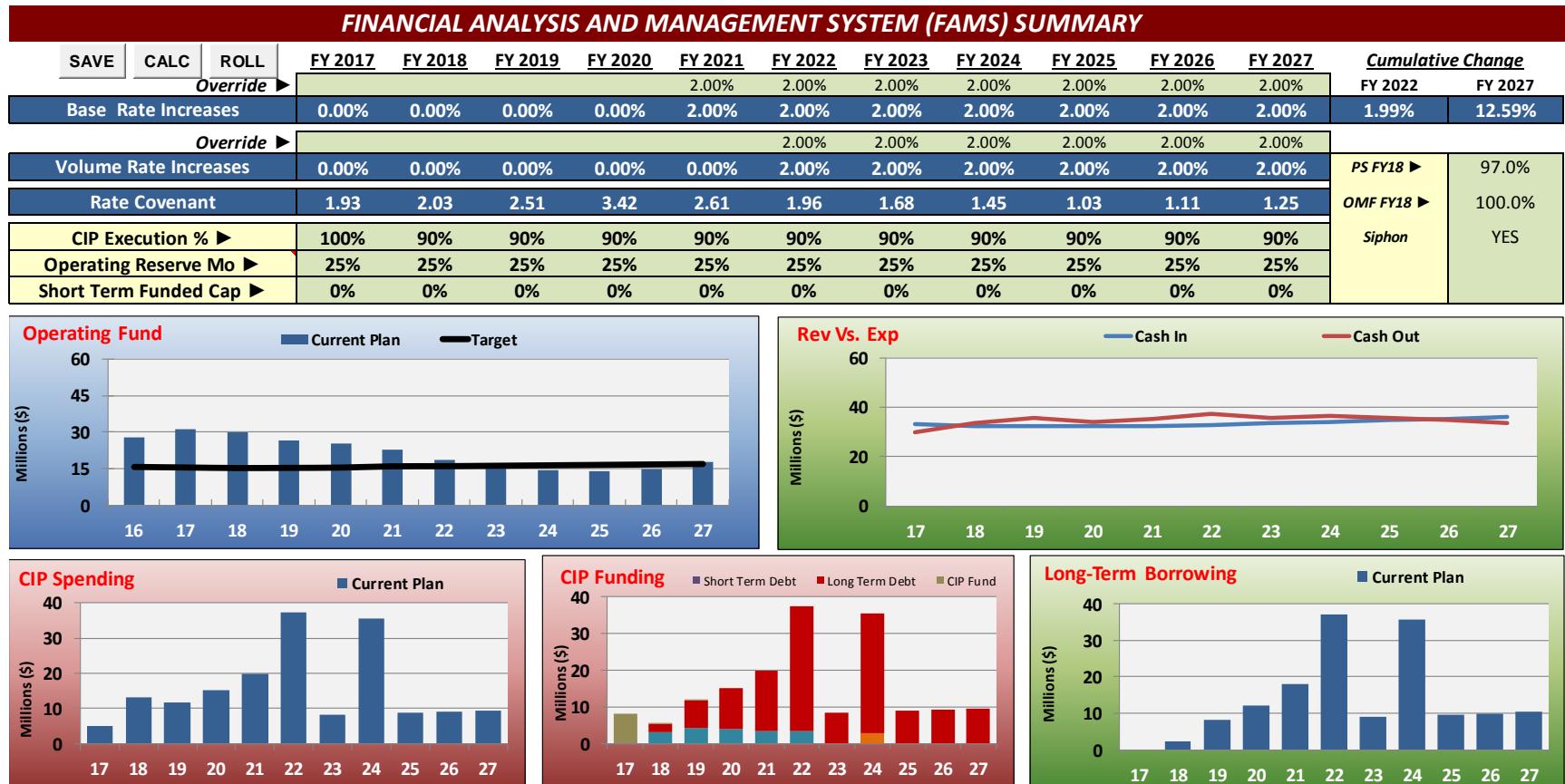
Project Description	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Wastewater Collection System Upgrades and Improvements - 3299969	\$ -	7,211,680	3,850,000	3,520,000	4,261,950	3,300,000	-	-	-	-	-
SROG - SAI, SRO, and 91st Ave. WWTP - 3200129	\$ -	3,301,217	4,546,442	4,228,407	3,316,458	3,300,000	-	-	-	-	-
Wastewater Conveyance System - Mechanical Stations - 3202559	\$ -	2,955,245	1,443,970	2,559,631	1,265,000	-	-	-	-	-	-
Water Reclamation Facilities Upgrades and Improvements - TBD	\$ -	300,000	1,760,000	4,510,000	8,910,000	19,250,000	-	-	-	-	-
Rio Salado Siphon Capacity Relief Project - TBD	\$ -	1,000,000	1,100,000	1,100,000	2,300,000	11,000,000	-	-	-	-	-
SROG - SAI, SRO, and 91st Ave. WWTP - 3200129	\$ -	-	-	-	-	-	-	25,000,000	-	-	-
Unspecified	\$ -	-	-	-	-	-	8,000,000	8,000,000	8,000,000	8,000,000	8,000,000
Current Year Placeholder	\$ 4,900,000	-	-	-	-	-	-	-	-	-	-
Total Capital Improvement Program	\$ 4,900,000	14,768,142	12,700,412	15,918,038	20,053,408	36,850,000	8,000,000	33,000,000	8,000,000	8,000,000	8,000,000
Cumulative Projected Cost Escalation	0.0%	0.0%	3.0%	6.1%	9.3%	12.6%	15.9%	19.4%	23.0%	26.7%	30.5%
Resulting CIP Funding Level	\$ 4,900,000	14,768,142	13,081,424	16,889,038	21,918,375	41,493,100	9,272,000	39,402,000	9,840,000	10,136,000	10,440,000
Annual CIP Execution Percentage	100%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
Final CIP Funding Level	\$ 4,900,000	13,291,328	11,773,282	15,200,135	19,726,538	37,343,790	8,344,800	35,461,800	8,856,000	9,122,400	9,396,000

Schedule 6- Cash Out

Water & Sewer Rate Study

Account	Dept	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
345	Interfund Transfer To	\$ 24,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500	\$ 38,500
346	Household Products Collection Center	\$ 100,000	\$ 100,000	\$ 200,000	\$ 205,000	\$ 210,125	\$ 215,378	\$ 220,763	\$ 226,282	\$ 231,939	\$ 237,737	\$ 243,681
347	SUBTOTAL	\$ 124,500	\$ 138,500	\$ 238,500	\$ 243,500	\$ 248,625	\$ 253,878	\$ 259,263	\$ 264,782	\$ 270,439	\$ 276,237	\$ 282,181
348	2,006	\$ 119,177	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
349	2007A	\$ 2,041,400	\$ 1,952,012	\$ 41,180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
350	2007R	\$ 693,183	\$ 664,673	\$ 15,458	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
351	2008A	\$ 1,452,703	\$ 1,184,314	\$ 1,194,581	\$ 24,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
352	2009GO	\$ 478,675	\$ 393,102	\$ 394,019	\$ 395,831	\$ 7,475	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
353	2009B Excise	\$ 559,369	\$ 527,735	\$ 529,261	\$ 529,940	\$ 135,609	\$ 126,215	\$ 126,211	\$ 574,690	\$ 583,339	\$ 584,394	\$ 584,635
354	2010A&B GO Bonds	\$ 503,540	\$ 504,715	\$ 506,010	\$ 504,937	\$ 504,573	\$ 503,962	\$ 504,624	\$ 504,627	\$ 505,713	\$ 506,042	\$ 506,595
355	2010C GO Bonds	\$ 2,243,447	\$ 2,255,957	\$ 2,095,625	\$ 2,095,425	\$ 1,397,914	\$ 880,808	\$ 16,335	\$ -	\$ -	\$ -	\$ -
356	2011 Excise Tax Bonds	\$ 726,364	\$ 573,913	\$ 572,329	\$ 574,700	\$ 577,238	\$ 575,050	\$ 13,388	\$ -	\$ -	\$ -	\$ -
357	2012 Excise Tax Bonds	\$ 55,780	\$ 55,555	\$ 55,586	\$ 55,868	\$ 55,620	\$ 55,744	\$ 55,789	\$ 55,744	\$ 56,059	\$ 55,823	\$ 55,472
358	2012B GO Bonds	\$ 110,159	\$ 110,159	\$ 110,159	\$ 110,159	\$ 1,205,409	\$ 1,226,631	\$ 1,247,561	\$ 20,759	\$ -	\$ -	\$ -
359	2013 Excise Tax Bonds	\$ 298,617	\$ 297,463	\$ 297,064	\$ 299,177	\$ 299,436	\$ 300,031	\$ 300,241	\$ 300,731	\$ 300,783	\$ 301,081	\$ 300,906
360	2013B GO Bonds	\$ 1,895,201	\$ 1,906,558	\$ 3,644,894	\$ 3,691,323	\$ 3,703,735	\$ 2,176,711	\$ 603,273	\$ 580,348	\$ 10,962	\$ -	\$ -
361	2014B GO Bonds	\$ 457,938	\$ 1,780,167	\$ 114,855	\$ 82,308	\$ 82,308	\$ 82,308	\$ 2,139,894	\$ 41,040	\$ -	\$ -	\$ -
362	2014C GO Bonds	\$ 726,710	\$ 726,710	\$ 2,846,710	\$ 2,875,860	\$ 2,887,891	\$ 4,288,946	\$ 4,336,328	\$ 6,320,184	\$ 120,416	\$ -	\$ -
363	2015 Excise Tax	\$ 24,582	\$ 220	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
364	2016 Excise Tax	\$ 2,896,800	\$ 3,253,525	\$ 3,280,236	\$ 452,695	\$ 791,721	\$ 801,017	\$ 1,369,758	\$ 913,282	\$ 900,495	\$ 883,349	\$ 883,088
365	2016B GO Bonds	\$ 1,647,535	\$ 861,440	\$ 849,525	\$ 2,113,825	\$ 2,540,632	\$ 2,555,602	\$ 2,570,430	\$ 2,599,241	\$ 6,506,586	\$ 4,817,218	\$ 2,453,823
366	GO Bonds 2017	\$ -	\$ 32,586	\$ 76,918	\$ 77,680	\$ 76,568	\$ 75,344	\$ 74,160	\$ 72,696	\$ 71,424	\$ 69,856	\$ 68,464
367	SUBTOTAL	\$ 16,931,177	\$ 17,080,802	\$ 16,624,409	\$ 13,884,286	\$ 14,266,127	\$ 13,648,367	\$ 13,357,990	\$ 11,983,340	\$ 9,055,778	\$ 7,217,762	\$ 4,852,982
368	Total Personnel Services Expense Projection	\$ 4,176,313	\$ 4,288,381	\$ 4,467,590	\$ 4,579,280	\$ 4,693,762	\$ 4,811,106	\$ 4,931,383	\$ 5,054,668	\$ 5,181,035	\$ 5,310,561	\$ 5,355,600
369	Execution Percentage	100%	97%	97%	97%	97%	97%	97%	97%	97%	97%	97%
370	Net Personnel Services Expense Forecast	\$ 4,176,313	\$ 4,159,729	\$ 4,333,562	\$ 4,441,901	\$ 4,552,949	\$ 4,666,773	\$ 4,783,442	\$ 4,903,028	\$ 5,025,604	\$ 5,151,244	\$ 5,194,932
371	Total Variable O&M Expense Projection	\$ 197,280	\$ 185,250	\$ 189,881	\$ 194,628	\$ 199,494	\$ 204,481	\$ 209,593	\$ 214,833	\$ 220,204	\$ 225,709	\$ 231,352
372	Execution Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
373	Net Variable O&M Expense Forecast	\$ 197,280	\$ 185,250	\$ 189,881	\$ 194,628	\$ 199,494	\$ 204,481	\$ 209,593	\$ 214,833	\$ 220,204	\$ 225,709	\$ 231,352
374	Total Fixed O&M Expense Projection	\$ 8,632,270	\$ 9,003,368	\$ 9,801,180	\$ 10,121,928	\$ 10,453,812	\$ 10,797,237	\$ 10,976,795	\$ 11,160,047	\$ 11,347,077	\$ 11,537,974	\$ 11,732,827
375	Execution Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
376	Net Fixed O&M Expense Forecast	\$ 8,632,270	\$ 9,003,368	\$ 9,801,180	\$ 10,121,928	\$ 10,453,812	\$ 10,797,237	\$ 10,976,795	\$ 11,160,047	\$ 11,347,077	\$ 11,537,974	\$ 11,732,827
377	Execution Percentage	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
378	Transfers Out	\$ 124,500	\$ 138,500	\$ 238,500	\$ 243,500	\$ 248,625	\$ 253,878	\$ 259,263	\$ 264,782	\$ 270,439	\$ 276,237	\$ 282,181
379	Annual Debt Service	\$ 16,931,177	\$ 17,080,802	\$ 16,624,409	\$ 13,884,286	\$ 14,266,127	\$ 13,648,367	\$ 13,357,990	\$ 11,983,340	\$ 9,055,778	\$ 7,217,762	\$ 4,852,982
380												
381	TOTAL CASH OUTFLOWS	\$ 30,061,539	\$ 30,567,649	\$ 31,187,532	\$ 28,886,244	\$ 29,721,006	\$ 29,570,737	\$ 29,587,083	\$ 28,526,030	\$ 25,919,102	\$ 24,408,926	\$ 22,294,273

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Rate Revenue Growth Assumptions											
1 Base Accounts/Customers	N/A	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%	0.18%
2 Volume Use	N/A	0.02%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.04%
Assumed Rate Revenue Increases											
4 Assumed Base Rate Increases	N/A	0.00%	0.00%	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
5 Assumed Volume Rate Increases	N/A	0.00%	0.00%	0.00%	0.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Rate Revenue											
7 Base Rate Revenue	\$ 9,599,664	9,616,726	9,633,819	9,650,942	9,763,983	9,976,965	10,194,593	10,417,252	10,644,194	10,876,377	11,113,626
8 Volumetric Revenue	\$ 23,210,720	22,314,793	22,320,548	22,326,577	22,332,882	22,515,901	22,927,782	23,348,126	23,775,177	24,211,007	24,655,141
9 Irrigation Revenue	\$ -	-	-	-	-	-	-	-	-	-	-
10 Total Rate Revenue	\$ 32,810,384	\$ 31,931,519	\$ 31,954,367	\$ 31,977,520	\$ 32,096,865	\$ 32,492,866	\$ 33,122,375	\$ 33,765,378	\$ 34,419,372	\$ 35,087,385	\$ 35,768,766
Other Operating Revenue											
12 Taps & Manholes-Wastewtr	\$ 25,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
13 Wastewater Alloc. - Surcha	\$ 275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000	275,000
14 Recovery of Write-Offs	\$ 9,047	-	-	-	-	-	-	-	-	-	-
15 Recovery of PY Expend/Reve	\$ 20	-	-	-	-	-	-	-	-	-	-
16 Recovery of PY Expend/Reve	\$ 872	-	-	-	-	-	-	-	-	-	-
17 Fats Oils + Grease (FOG)		189,000	189,000	189,000	189,000	189,000	189,000	189,000	189,000	189,000	189,000
18 Total Other Operating Revenues	\$ 309,938	\$ 494,000									
Non-Operating Revenue											
20 Interest Income	\$ 220,467	304,982	354,301	390,170	360,497	309,549	262,822	231,858	212,026	215,603	245,333
21 Interest Income - Restricted	\$ -	823	5,659	17,691	34,204	65,154	91,448	117,375	143,626	155,003	166,721
22 Total Non-Operating Revenues	\$ 220,467	\$ 305,805	\$ 359,960	\$ 407,861	\$ 394,701	\$ 374,703	\$ 354,270	\$ 349,233	\$ 355,652	\$ 370,606	\$ 412,054
System Development Fees											
23 Sewer System Development Fees	\$ 163,055	170,232	170,537	170,842	171,148	171,455	171,762	172,069	172,378	172,686	172,996
24 Total System Development Fees	\$ 163,055	\$ 170,232	\$ 170,537	\$ 170,842	\$ 171,148	\$ 171,455	\$ 171,762	\$ 172,069	\$ 172,378	\$ 172,686	\$ 172,996
25 Total Revenue	\$ 33,503,845	\$ 32,901,555	\$ 32,978,864	\$ 33,050,223	\$ 33,156,714	\$ 33,533,024	\$ 34,142,407	\$ 34,780,681	\$ 35,441,401	\$ 36,124,677	\$ 36,847,816



FINAL CAPITAL PROJECTS FUNDING SOURCES	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
System Development Fees	\$ -	-	-	-	-	-	-	2,835,910	-	-	-
Bond Proceeds	\$ 3,712,000	13,920	70	0	0	0	0	0	0	0	0
Cip Fund	\$ 1,188,000	8,107,511	40,538	253	2	0	0	0	0	0	0
Long Term Debt Proceeds	\$ -	2,198,802	7,518,123	11,162,175	16,464,136	33,999,570	8,344,800	32,625,890	8,856,000	9,122,400	9,396,000
Projects Designated To Be Paid With Cash	\$ -	2,971,095	4,214,552	4,037,706	3,262,400	3,344,220	-	-	-	-	-
Total Projects Paid	\$ 4,900,000	13,291,328	11,773,282	15,200,135	19,726,538	37,343,790	8,344,800	35,461,800	8,856,000	9,122,400	9,396,000
Total Cip Input	\$ 4,900,000	13,291,328	11,773,282	15,200,135	19,726,538	37,343,790	8,344,800	35,461,800	8,856,000	9,122,400	9,396,000
Variance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Schedule 11- Detailed Funding Summary

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
1 SYSTEM DEVELOPMENT FEES											
2 Balance At Beginning Of Fiscal Year	\$ 1,293,265	1,466,631	1,652,380	1,844,637	2,044,430	2,247,528	2,453,981	2,663,841	19,979	193,949	370,840
3 Additional Annual Revenues	\$ 163,055	170,232	170,537	170,842	171,148	171,455	171,762	172,069	172,378	172,686	172,996
4 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
5 Subtotal	\$ 1,456,320	1,636,862	1,822,916	2,015,479	2,215,578	2,418,982	2,625,743	2,835,910	192,356	366,635	543,836
6 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
7 Total Amount Available For Projects	\$ 1,456,320	1,636,862	1,822,916	2,015,479	2,215,578	2,418,982	2,625,743	2,835,910	192,356	366,635	543,836
8 Amount Paid For Projects	\$ -	-	-	-	-	-	-	(2,835,910)	-	-	-
9 Subtotal	\$ 1,456,320	1,636,862	1,822,916	2,015,479	2,215,578	2,418,982	2,625,743	-	192,356	366,635	543,836
10 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
11 Plus: Interest Earnings	\$ 10,311	15,517	21,721	28,951	31,950	34,999	38,098	19,979	1,593	4,204	6,860
12 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
13 Balance At End Of Fiscal Year	\$ 1,466,631	1,652,380	1,844,637	2,044,430	2,247,528	2,453,981	2,663,841	19,979	193,949	370,840	550,696
53 BOND PROCEEDS											
54 Balance At Beginning Of Fiscal Year	\$ 3,712,000	13,920	70	0	0	0	0	0	0	0	0
55 Additional Annual Revenues	\$ -	-	-	-	-	-	-	-	-	-	-
56 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
57 Subtotal	\$ 3,712,000	13,920	70	0	0	0	0	0	0	0	0
58 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
59 Total Amount Available For Projects	\$ 3,712,000	13,920	70	0	0	0	0	0	0	0	0
60 Amount Paid For Projects	\$ (3,712,000)	(13,920)	(70)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
61 Subtotal	\$ -	-	-	-	-	-	-	-	-	-	-
62 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
63 Plus: Interest Earnings	\$ 13,920	70	0	0	0	0	0	0	0	0	0
64 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
65 Balance At End Of Fiscal Year	\$ 13,920	70	0	0	0	0	0	0	0	0	0
66 CIP FUND											
67 Balance At Beginning Of Fiscal Year	\$ 9,230,735	8,107,511	40,538	253	2	0	0	0	0	0	0
68 Additional Annual Revenues	\$ -	-	-	-	-	-	-	-	-	-	-
69 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
70 Subtotal	\$ 9,230,735	8,107,511	40,538	253	2	0	0	0	0	0	0
71 Less: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
72 Total Amount Available For Projects	\$ 9,230,735	8,107,511	40,538	253	2	0	0	0	0	0	0
73 Amount Paid For Projects	\$ (1,188,000)	(8,107,511)	(40,538)	(253)	(2)	(0)	(0)	(0)	(0)	(0)	(0)
74 Subtotal	\$ 8,042,735	-	-	-	-	-	-	-	-	-	-
75 Add Back: Restricted Funds	\$ -	-	-	-	-	-	-	-	-	-	-
76 Plus: Interest Earnings	\$ 64,776	40,538	253	2	0	0	0	0	0	0	0
77 Less: Interest Allocated To Cash Flow	\$ -	-	-	-	-	-	-	-	-	-	-
78 Balance At End Of Fiscal Year	\$ 8,107,511	40,538	253	2	0	0	0	0	0	0	0

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
92 REVENUE FUND											
93 Balance At Beginning Of Fiscal Year	\$ 27,756,000	31,035,250	29,961,089	26,727,060	25,295,560	22,770,658	18,502,513	16,540,411	14,374,003	13,896,107	14,850,971
94 Additional Annual Revenues	\$ 3,279,250	1,896,934	980,523	2,606,206	737,498	(923,926)	(1,962,102)	(2,166,408)	(477,896)	954,864	3,009,131
95 Less: Cash-Funded Capital Projects	\$ -	(2,971,095)	(4,214,552)	(4,037,706)	(3,262,400)	(3,344,220)	-	-	-	-	-
96 Less: Payment Of Debt Service	\$ -	-	-	-	-	-	-	-	-	-	-
97 Subtotal	\$ 31,035,250	29,961,089	26,727,060	25,295,560	22,770,658	18,502,513	16,540,411	14,374,003	13,896,107	14,850,971	17,860,102
98 Less: Restricted Funds	\$ (15,614,920)	(15,415,797)	(15,470,388)	(15,580,087)	(16,053,260)	(16,107,628)	(16,263,552)	(14,374,003)	(13,896,107)	(14,850,971)	(16,919,016)
99 Total Amount Available For Projects	\$ 15,420,330	14,545,292	11,256,672	9,715,473	6,717,399	2,394,885	276,859	-	-	-	941,086
100 Amount Paid For Projects	\$ -	-	-	-	-	-	-	-	-	-	-
101 Subtotal	\$ 15,420,330	14,545,292	11,256,672	9,715,473	6,717,399	2,394,885	276,859	-	-	-	941,086
102 Add Back: Restricted Funds	\$ 15,614,920	15,415,797	15,470,388	15,580,087	16,053,260	16,107,628	16,263,552	14,374,003	13,896,107	14,850,971	16,919,016
103 Plus: Interest Earnings	\$ 220,467	304,982	354,301	390,170	360,497	309,549	262,822	231,858	212,026	215,603	245,333
104 Less: Interest Allocated To Cash Flow	\$ (220,467)	(304,982)	(354,301)	(390,170)	(360,497)	(309,549)	(262,822)	(231,858)	(212,026)	(215,603)	(245,333)
105 Balance At End Of Fiscal Year	\$ 31,035,250	29,961,089	26,727,060	25,295,560	22,770,658	18,502,513	16,540,411	14,374,003	13,896,107	14,850,971	17,860,102

Schedule 12- Long Term Borrowing

Water & Sewer Rate Study

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Term (Years)		20	20	20	20	20	20	20	20	20	20
Interest Rate	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%
Sources of Funds											
Par Amount	\$0	\$2,392,027	\$8,192,899	\$12,185,276	\$18,005,039	\$37,248,366	\$9,158,799	\$35,808,402	\$9,719,864	\$10,012,250	\$10,312,539
Uses of Funds											
Proceeds	\$0	\$2,198,802	\$7,518,123	\$11,162,175	\$16,464,136	\$33,999,570	\$8,344,800	\$32,625,890	\$8,856,000	\$9,122,400	\$9,396,000
Cost of Issuance	0.00% of Par	\$0	\$23,920	\$81,929	\$121,853	\$180,050	\$372,484	\$91,588	\$358,084	\$97,199	\$100,123
Underwriter's Discount	0.00% per \$1,000	\$0	\$4,784	\$16,386	\$24,371	\$36,010	\$74,497	\$18,318	\$71,617	\$19,440	\$20,025
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 Surety	0.00% of Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Service Reserve	0 Year(s) of Debt Service	\$0	\$164,521	\$576,461	\$876,878	\$1,324,842	\$2,801,816	\$704,093	\$2,752,812	\$747,226	\$769,703
Other Costs		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Uses		\$0	\$2,392,027	\$8,192,899	\$12,185,276	\$18,005,039	\$37,248,366	\$9,158,799	\$35,808,402	\$9,719,864	\$10,012,250
1 Year Interest		\$0	\$77,741	\$286,751	\$456,948	\$720,202	\$1,583,056	\$412,146	\$1,611,378	\$437,394	\$450,551
Annual Debt Service		\$0	\$164,521	\$576,461	\$876,878	\$1,324,842	\$2,801,816	\$704,093	\$2,752,812	\$747,226	\$769,703
Total Debt Service		\$0	\$3,290,419	\$11,529,224	\$17,537,560	\$26,496,846	\$56,036,319	\$14,081,863	\$55,056,238	\$14,944,513	\$15,394,064
Cumulative New Annual Senior Lien Debt Service		\$0	\$77,741	\$451,272	\$1,197,930	\$2,338,062	\$4,525,758	\$6,156,664	\$8,059,990	\$9,638,817	\$10,399,200
											\$11,182,417

APPENDIX C – WATER COST OF SERVICE ALLOCATION

Supporting Schedules

Service	Water
Function	
A	Source of Supply
B	Treatment
C	Transmission/Distribution
D	Meters/Services

WATER				
Function	<u>Base Capacity - Avg Day</u>	<u>Extra Capacity - Max Day</u>	<u>Extra Capacity - Peak Hour</u>	<u>Customer</u>
Source of Supply	X			
Treatment	X	X		
Transmission/Distribution	X	X	X	
Meters/Services				X

Schedule 2- Budget Functionalization

Water & Sewer Rate Study

Department	Test Year COS	Allocation Basis/Factor	Transmission/Distribution						Supply \$ Allocation	Treatment \$ Allocation	Transmission/Distribution	
			Supply % Allocation	Treatment % Allocation	% Allocation	Meters/Services % Allocation	Total % Allocation	Meters/Services \$ Allocation		Treatment \$ Allocation	Supply \$ Allocation	
Salaries	Customer Services	662,510	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	662,510
Wages	Customer Services	59,501	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	59,501
Overtime	Customer Services	6,392	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	6,392
Vacation Pay	Customer Services	30,095	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	30,095
Sick Pay	Customer Services	18,709	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	18,709
Holiday Pay	Customer Services	777	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	777
Bilingual Pay	Customer Services	360	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	360
Fica Taxes	Customer Services	47,741	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	47,741
Arizona State Retirement	Customer Services	76,098	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	76,098
Employee Health Insurance	Customer Services	131,557	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	131,557
Long Term Disability	Customer Services	6,281	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	6,281
Mediflex Reimbursed Expens	Customer Services	5,412	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	5,412
Defined Contribution- Ret	Customer Services	7,560	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	7,560
LTD-ASRS	Customer Services	648	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	648
General Office Supplies	Customer Services	15,600	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	15,600
Uniform Allowance	Customer Services	4,200	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	4,200
Minor Equipment	Customer Services	2,400	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	2,400
Printing + Copier Supplies	Customer Services	133	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	133
Operating + Maint. Supplie	Customer Services	1,800	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	1,800
Contracted Services	Customer Services	132,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	132,000
Software Purchases	Customer Services	250	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	250
Training + Development	Customer Services	4,200	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	4,200
Software Maintenance	Customer Services	158,100	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	158,100
Bank Service Charges	Customer Services	330,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	330,000
Cell Phone Charges	Customer Services	4,200	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	4,200
Postage	Customer Services	14	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	14
Postage - Exclusion	Customer Services	180,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	180,000
Membership + Subs	Customer Services	540	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	540
Outside Printing/Forms	Customer Services	1,030	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	1,030
Duplicating	Customer Services	6	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	6
Equipment + Machine Rental	Customer Services	2,093	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	2,093
Bad Debt Expense	Customer Services	61,431	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	61,431
Misc. Fees + Services	Customer Services	1,761	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	1,761
Training + Seminars	Customer Services	9,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	9,000
Local Meetings	Customer Services	900	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	900
Computer Equipment	Customer Services	1,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	1,500
Technology Costs	Customer Services	191,420	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	191,420
Vehicle Maintenance Cost	Customer Services	10,869	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	10,869
Worker's Comp Claims	Customer Services	(4,101)	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	(4,101)
Vehicle Fuel/Oil Costs	Customer Services	13,585	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	13,585
Telephone Costs	Customer Services	5,204	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	5,204
Support Services Charges	Customer Services	946	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	946
Risk Management Charges	Customer Services	2,780	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	2,780
Interactivity Charges	Customer Services	2,780	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	2,780
Interactivity Cr-General	Customer Services	(180,265)	Meter/Services	0.00%	0.00%	0.00%	100.00%	100.0000%	-	-	-	(180,265)
Salaries	Water Admin	467,002	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	38,312	244,251	139,298	45,142
Overtime	Water Admin	4,960	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	407	2,594	1,479	479
Compensation Adjustment	Water Admin	285,193	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	23,397	149,161	85,068	27,567
Bilingual Pay	Water Admin	480	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	39	251	143	46
Fica Taxes	Water Admin	34,418	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	2,824	18,001	10,266	3,327
Arizona State Retirement	Water Admin	54,237	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	4,449	28,367	16,178	5,243
Employee Health Insurance	Water Admin	74,088	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	6,078	38,749	22,099	7,162
Mediflex Reimbursed Expens	Water Admin	2,752	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	226	1,439	821	266
Defined Benefit- Ret Healt	Water Admin	73,925	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	6,065	38,664	22,050	7,146
OPEB Trust Contribution	Water Admin	3,343	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	274	1,749	997	323
Defined Contribution- Ret	Water Admin	3,360	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	276	1,757	1,002	325
Pre-medicare HRA Contribut	Water Admin	381,332	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	31,284	199,444	113,744	36,860
LTD-ASRS	Water Admin	380	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	31	199	113	37
General Office Supplies	Water Admin	12,000	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	984	6,276	3,579	1,160
Uniform Allowance	Water Admin	28,000	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	2,297	14,645	8,352	2,707
Operating + Maint. Supplie	Water Admin	12,000	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	984	6,276	3,579	1,160

Schedule 2- Budget Functionalization

Water & Sewer Rate Study

Department	Test Year COS	Allocation Basis/Factor	Transmission/Distribution					Transmission/Distribution				
			Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Total % Allocation	Supply \$ Allocation	Treatment \$ Allocation	Distribution \$ Allocation	Meters/Services \$ Allocation	
LTD-ASRS								12	79	45	15	
Uniform Allowance								39	251	143	46	
Minor Equipment								172	1,098	626	203	
Operating + Maint. Supplie								172	1,098	626	203	
Books + Publications								12	78	45	14	
Electricity								34	220	125	41	
Water, Refuse + Sewer								62	392	224	72	
Survey + Staking								0	0	0	0	
Contracted Services								4,761	30,356	17,312	5,610	
Software Purchases								62	392	224	72	
Software Maintenance								738	4,707	2,685	870	
Cell Phone Charges								4	28	16	5	
Membership + Subs								185	1,177	671	217	
Advertising								6	37	21	7	
Duplicating								1	7	4	1	
Equipment + Machinery Repa								74	471	268	87	
Misc. Fees + Services								14	91	52	17	
Technology Costs								755	4,814	2,746	890	
Vehicle Maintenance Cost								270	1,720	981	318	
Communications Costs								30	193	110	36	
Vehicle Fuel/Oil Costs								338	2,156	1,230	399	
Telephone Costs								60	381	217	70	
Risk Management Charges								25	160	91	30	
Salaries								88,179	-	-	-	
Overtime								9,162	-	-	-	
Fica Taxes								6,874	-	-	-	
Arizona State Retirement								11,175	-	-	-	
Employee Health Insurance								18,352	-	-	-	
Mediflex Reimbursed Expns								975	-	-	-	
Defined Contribution- Ret								2,520	-	-	-	
LTD-ASRS								93	-	-	-	
Uniform Allowance								300	-	-	-	
Lab Supplies								7,500	-	-	-	
Minor Equipment								10,500	-	-	-	
Operating + Maint. Supplie								3,360	-	-	-	
Books + Publications								150	-	-	-	
Equipment + Machinery Repa								6,000	-	-	-	
Technology Costs								12,895	-	-	-	
Vehicle Maintenance Cost								966	-	-	-	
Worker's Comp Claims								685	-	-	-	
Communications Costs								37	-	-	-	
Vehicle Fuel/Oil Costs								1,284	-	-	-	
Telephone Costs								104	-	-	-	
Risk Management Charges								232	-	-	-	
Operating + Maint. Supplie								15,000	-	-	-	
Electricity- Audit								95,500	-	-	-	
Electricity								600	-	-	-	
Water, Refuse + Sewer								18,600	-	-	-	
Contracted Services								2,500	-	-	-	
Misc. Fees + Services								56	-	-	-	
Technology Costs								10,044	-	-	-	
Vehicle Maintenance Cost								1,294	-	-	-	
Communications Costs								246	-	-	-	
Vehicle Fuel/Oil Costs								660	-	-	-	
Telephone Costs								607	-	-	-	
Loan Repayment								2,471	-	-	-	
Salaries								148,532	-	-	-	
Overtime								15,270	-	-	-	
Holiday Pay								1,127	-	-	-	
Fica Taxes								11,663	-	-	-	
Arizona State Retirement								18,934	-	-	-	
Employee Health Insurance								26,884	-	-	-	
Mediflex Reimbursed Expns								1,300	-	-	-	
Defined Contribution- Ret								1,050	-	-	-	
LTD-ASRS								157	Transmission/Distribution	0.00%	0.00%	

Department	Test Year COS	Allocation Basis/Factor	Transmission/Distribution					Supply \$ Allocation	Treatment \$ Allocation	Distribution \$ Allocation	Meters/Services \$ Allocation	Total \$ Allocation
			Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Total % Allocation					
General Office Supplies		Field Fac	500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	500
Uniform Allowance		Field Fac	200	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	200
Chemical Supplies		Field Fac	150,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	150,000
Gasoline + Diesel Fuels		Field Fac	2,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	2,500
Hand Tools		Field Fac	500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	500
Minor Equipment		Field Fac	1,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	1,500
Shop Supplies		Field Fac	500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	500
Paint, Thinner, Etc.		Field Fac	955	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	955
Electrical Supplies		Field Fac	5,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	5,000
Comm. Parts - Telephone		Field Fac	46	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	46
Operating + Maint. Supplie		Field Fac	10,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	10,000
Other Equipment + Supplies		Field Fac	1,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	1,000
Miscellaneous Supplies		Field Fac	500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	500
Electricity		Field Fac	25,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	25,000
Water, Refuse + Sewer		Field Fac	12,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	12,500
SRP Water		Field Fac	2,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	2,000
Contracted Services		Field Fac	39,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	39,000
Training + Development		Field Fac	25	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	25
Equipment + Machine Rental		Field Fac	1,043	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	1,043
Misc. Fees + Services		Field Fac	83	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	83
Technology Costs		Field Fac	8,656	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	8,656
Vehicle Maintenance Cost		Field Fac	4,194	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	4,194
Worker's Comp Claims		Field Fac	265	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	265
Communications Costs		Field Fac	62	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	62
Vehicle Fuel/Oil Costs		Field Fac	3,348	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	3,348
Telephone Costs		Field Fac	347	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	347
Risk Management Charges		Field Fac	26,931	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	100.0000%	-	-	26,931
Salaries		Lab	259,805	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	259,805	-	-
Holiday Pay		Lab	654	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	654	-	-
Bilingual Pay		Lab	750	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	750	-	-
Fica Taxes		Lab	19,467	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	19,467	-	-
Arizona State Retirement		Lab	29,987	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	29,987	-	-
Employee Health Insurance		Lab	32,616	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	32,616	-	-
Mediflex Reimbursed Expens		Lab	1,720	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	1,720	-	-
Defined Contribution- Ret		Lab	5,250	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	5,250	-	-
LTD-ASRS		Lab	230	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	230	-	-
General Office Supplies		Lab	200	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	200	-	-
Uniform Allowance		Lab	700	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	700	-	-
Lab Supplies		Lab	87,500	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	87,500	-	-
Minor Equipment		Lab	25,000	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	25,000	-	-
Operating + Maint. Supplie		Lab	29	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	29	-	-
Custodial Supplies		Lab	553	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	553	-	-
Books + Publications		Lab	250	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	250	-	-
Testing		Lab	92,500	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	92,500	-	-
Contracted Services		Lab	37,500	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	37,500	-	-
Software Maintenance		Lab	1,000	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	1,000	-	-
Equipment + Machinery Repa		Lab	1,000	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	1,000	-	-
Taxes + Licenses		Lab	5,000	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	5,000	-	-
Training + Seminars		Lab	30	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	30	-	-
Local Meetings		Lab	225	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	225	-	-
Other Equipment		Lab	16,173	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	16,173	-	-
Technology Costs		Lab	13,730	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	13,730	-	-
Vehicle Maintenance Cost		Lab	274	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	274	-	-
Telephone Costs		Lab	954	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	954	-	-
Risk Management Charges		Lab	101	Supply	100.00%	0.00%	0.00%	0.00%	100.0000%	101	-	-
Salaries		Water Res Admin	110,402	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	110,402	-
Wages		Water Res Admin	19,578	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	19,578	-
Vacation Pay		Water Res Admin	28,058	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	28,058	-
Sick Pay		Water Res Admin	15,126	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	15,126	-
Holiday Pay		Water Res Admin	331	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	331	-
Fica Taxes		Water Res Admin	8,418	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	8,418	-
Arizona State Retirement		Water Res Admin	12,674	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	12,674	-
Employee Health Insurance		Water Res Admin	7,517	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	7,517	-
Mediflex Reimbursed Expens		Water Res Admin	650	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	650	-
LTD-ASRS		Water Res Admin	47	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	47	-
General Office Supplies		Water Res Admin	4	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	4	-

Schedule 2- Budget Functionalization

Water & Sewer Rate Study

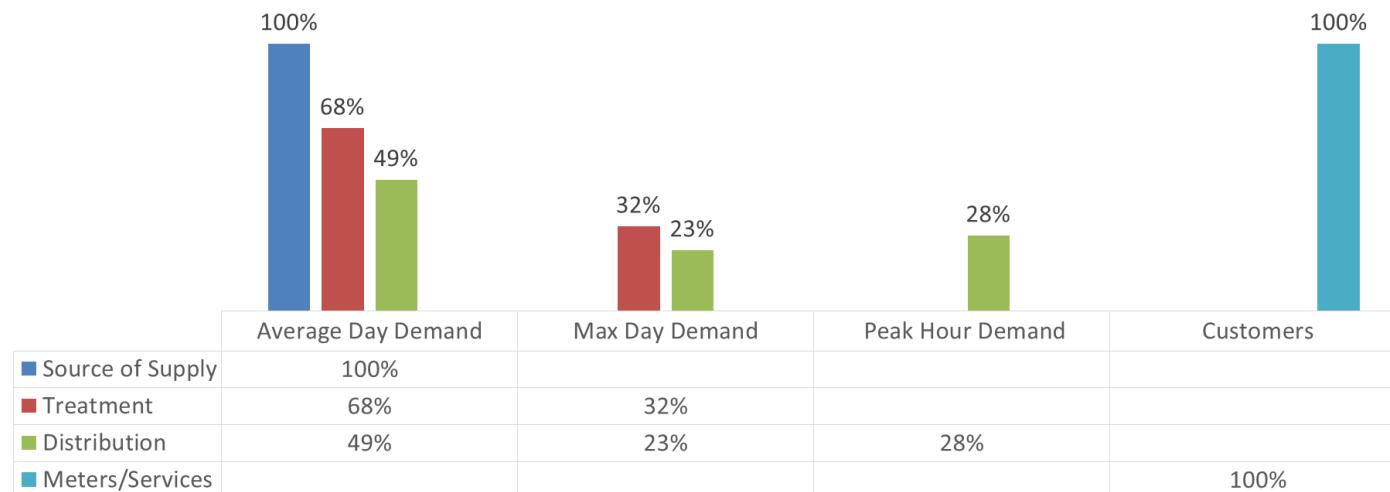
Department	Test Year COS	Allocation Basis/Factor	Transmission/Distribution					Transmission/Distribution			
			Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Total % Allocation	Supply \$ Allocation	Treatment \$ Allocation	Distribution \$ Allocation	Meters/Services \$ Allocation
Contracted Services	Water Res Admin	102,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	102,000	-
Membership + Subs	Water Res Admin	55,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	55,000	-
Misc. Fees + Services	Water Res Admin	25,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	25,000	-
Technology Costs	Water Res Admin	2,232	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	2,232	-
Telephone Costs	Water Res Admin	347	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	347	-
Salaries	Conservation	172,028	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	172,028	-
Wages	Conservation	17,976	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	17,976	-
Vacation Pay	Conservation	28,279	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	28,279	-
Sick Pay	Conservation	26,264	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	26,264	-
Fica Taxes	Conservation	12,261	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	12,261	-
Arizona State Retirement	Conservation	19,749	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	19,749	-
Employee Health Insurance	Conservation	31,025	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	31,025	-
Mediflex Reimbursed Expens	Conservation	1,950	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	1,950	-
Defined Contribution- Ret	Conservation	4,200	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	4,200	-
LTD-ASRS	Conservation	92	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	92	-
General Office Supplies	Conservation	200	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	200	-
Uniform Allowance	Conservation	400	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	400	-
Landscaping Supplies	Conservation	8,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	8,000	-
Operating + Maint. Supplie	Conservation	6,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	6,000	-
Books + Publications	Conservation	300	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	300	-
Awards + Recognition	Conservation	185	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	185	-
Other Equipment + Supplies	Conservation	5,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	5,000	-
Conservation Rebate	Conservation	86,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	86,000	-
Landscape Maint. Contract	Conservation	104,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	104,000	-
Contracted Services	Conservation	51,600	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	51,600	-
Advertising	Conservation	2,500	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	2,500	-
Special Projects	Conservation	75,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	75,000	-
Technology Costs	Conservation	14,413	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	14,413	-
Vehicle Maintenance Cost	Conservation	4,300	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	4,300	-
Vehicle Fuel/Oil Costs	Conservation	1,240	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	1,240	-
Telephone Costs	Conservation	347	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	347	-
Multifamily Rebates	Conservation	35,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	35,000	-
Personalized Home Water Report	Conservation	10,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	10,000	-
Indust/Comm Landscape Rebate	Conservation	35,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	35,000	-
Neighborhood Grants	Conservation	30,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	30,000	-
Parks Irrig Syst Efficiencies	Conservation	40,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	40,000	-
Industrial Grants	Conservation	50,000	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	50,000	-
Salaries	Stormwater	1,893	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	155	990	565
Fica Taxes	Stormwater	142	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	12	74	42
Arizona State Retirement	Stormwater	228	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	19	119	68
Support Services Charges	Stormwater	133,283	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	10,934	69,710	39,756
Fiscal Agent Fees	Fixed Assets	29,251	Fixed Assets	5.63%	35.75%	57.63%	0.98%	100.0000%	12,912	81,963	132,126
Vehicles	Fixed Assets	0	Fixed Assets	5.63%	35.75%	57.63%	0.98%	100.0000%	6,055	38,434	61,956
Water Resources	Treatment	107,500	Treatment	0.00%	100.00%	0.00%	0.00%	100.0000%	-	1,044,623	-
Interfund Transfer	Indirect	1,044,623	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	19,345	123,328	70,335
Household Products Collection Center	Indirect	235,800	Indirect	8.20%	52.30%	29.83%	9.67%	100.0000%	8,204	52,302	29,828
CIP Transfer To	5 Year CIP Projects	3,117,758	5 Year CIP Projects	12.91%	11.41%	65.97%	9.70%	100.0000%	402,639	355,825	2,056,930
CIP Transfer To	5 Year CIP Projects	0	5 Year CIP Projects	12.91%	11.41%	65.97%	9.70%	100.0000%	66,553	58,815	339,992
Debt Service	Fixed Assets	24,262,496	Fixed Assets	5.63%	35.75%	57.63%	0.98%	100.0000%	1,366,575	8,674,411	13,983,404
Projects Funded with Cash	5 Year CIP Projects	0	5 Year CIP Projects	12.91%	11.41%	65.97%	9.70%	100.0000%	22,379	19,777	114,326
TOTAL EXPENDITURES		57,703,260							4,118,147	26,093,707	24,020,784
									7.14%	45.22%	41.63%
											6.02%

Schedule 2- Budget Functionalization

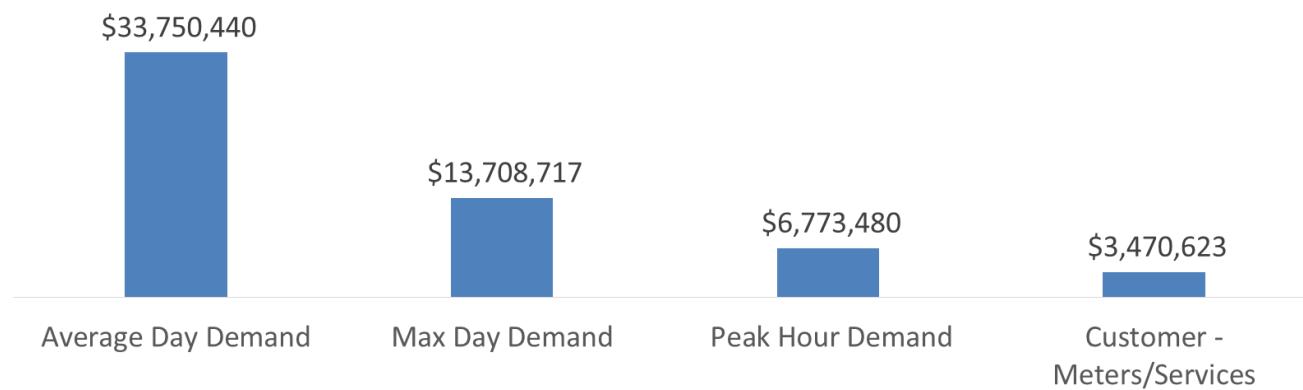
Water & Sewer Rate Study

Type	Budget	Allocation Factor	Residential % Allocation	Multi-Family % Allocation	Commercial % Allocation	Construction % Allocation	Industrial % Allocation	Landscaping % Allocation	Total % Allocation	Residential \$ Allocation	Multi-Family \$ Allocation	Commercial \$ Allocation	Construction \$ Allocation	Industrial \$ Allocation	Landscaping \$ Allocation
Inspection Fee	3,500	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	2,978,596	1,249,896	1,952,519	73,717	650,433	1,288,981
NSF Check/CC Return Fees	3,500	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	2,660	359	312	8	6	156
Delinquent Collection Ch	483,004	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	1,137	543	879	31	314	596
Fire Hydrant Meters	12,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	156,919	74,957	121,258	4,337	43,300	82,234
Meters	50,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	38,002	5,124	4,453	117	82	2,222
Installation Charges	3,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	2,280	307	267	7	5	133
Taps & Manholes-Water	4,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	3,040	410	356	9	7	178
Taps & Manholes-Wastewtr	-	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	-	-	-	-	-	-
Reconnect Fee	55,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	41,802	5,636	4,898	129	90	2,444
Turn on Fees	175,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	133,007	17,934	15,584	411	288	7,776
Proceeds on Sale of Assets	65,000	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	21,117	10,087	16,318	584	5,827	11,067
Recycle/Scrap Material Rev	30,000	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	9,746	4,656	7,531	269	2,689	5,108
Irrigation Billings	250,000	Total Customers	76.00%	10.25%	8.91%	0.23%	0.16%	4.44%	100.00%	190,011	25,620	22,263	587	411	11,108
Inspection Fee	7,500	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	2,437	1,164	1,883	67	672	1,277
Environmental Fines	65,000	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	21,117	10,087	16,318	584	5,827	11,067
Inspection Fee	7,500	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	2,437	1,164	1,883	67	672	1,277
Vehicle Salvage	8,656	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	2,812	1,343	2,173	78	776	1,474
Interest Income	369,258	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	119,965	57,305	92,702	3,316	33,103	62,868
Interest Income - Restricted	-	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	-	-	-	-	-	-
System Development Fee	470,188	Meter Equivalents	48.66%	17.09%	21.89%	1.71%	1.41%	9.24%	100.00%	228,805	80,346	102,934	8,025	6,622	43,457
Use of Operating Funds for Water	6,132,035	Water Sales	32.49%	15.52%	25.10%	0.90%	8.96%	17.03%	100.00%	1,992,181	951,623	1,539,439	55,061	549,722	1,044,009
Total Other Revenues	8,194,141									2,978,596	1,249,896	1,952,519	73,717	650,433	1,288,981

Basis of Allocating Functional Costs to Units of Service



Distribution of FY 2018 Water System Cost to Units of Service



Water Units of Service	Base Units		Max Day Units			Max Hour Units			Customer Units		
	Annual Use 1,000 gallons	Average Rate 1,000 gpd	Peaking Factor %	Total Capacity 1,000 gpd	Extra Capacity 1,000 gpd	Peaking Factor %	Total Capacity 1,000 gpd	Extra Capacity 1,000 gpd	Equivalent Meters & Services	Number of Customers	Number of Bills
Residential	4,609,929	12,629.94	250	31,575	18,945	350	44,205	12,630	37,212	32,364	388,368
Multi-Family	2,648,644	7,256.56	200	14,513	7,257	275	19,956	5,442	13,067	4,364	52,366
Commercial	4,120,233	11,288	200	22,577	11,288	275	31,043	8,466	16,741	3,792	45,504
Construction	65,046	178	250	445.52	267	350	624	178	1,305	100	1,200
Industrial	1,688,874	4,627	150	6,940.58	2,314	200	9,254	2,314	1,077	70	840
Landscaping	2,272,385	6,226	300	18,677	12,451	400	24,903	6,226	7,068	1,892	22,704
Total	15,405,111	42,206		94,728	52,522		129,984	35,256	76,470	42,582	510,982

	Fire				
	Annual Use 1,000 gallons	MD Extra Capacity 1,000 gpd	MH Extra Capacity 1,000 gpd	Protection (1,000 gallons)	Number of Bills
Residential	4,609,929	18,945	12,630	3,883,680	388,368
Multi-Family	2,648,644	7,257	5,442	1,570,980	52,366
Commercial	4,120,233	11,288	8,466	1,365,120	45,504
Construction	65,046	267	178	36,000	1,200
Industrial	1,688,874	2,314	2,314	25,200	840
Landscaping	2,272,385	12,451	6,226	-	22,704

Revenue Requirements	Total	Residential	Multi-Family	Commercial	Construction	Industrial	Landscaping
Operations and Maintenance	\$ 33,267,476	\$ 12,078,755	\$ 5,185,326	\$ 7,840,015	\$ 143,496	\$ 2,668,014	\$ 5,351,870
Plus: Debt Service	\$ 24,262,496	\$ 7,966,580	\$ 3,885,821	\$ 6,028,031	\$ 110,413	\$ 2,072,458	\$ 4,199,192
Plus: Rate Funded Capital	\$ 173,288	\$ 63,482	\$ 26,972	\$ 40,776	\$ 755	\$ 13,651	\$ 27,652
Total Revenue Requirements	\$ 57,703,260	\$ 20,108,817	\$ 9,098,120	\$ 13,908,822	\$ 254,664	\$ 4,754,123	\$ 9,578,714
Less: Other Revenue	\$ 8,194,141	\$ 2,978,596	\$ 1,249,896	\$ 1,952,519	\$ 73,717	\$ 650,433	\$ 1,288,981
Rate Requirement	\$ 49,509,119	\$ 17,130,221	\$ 7,848,224	\$ 11,956,303	\$ 180,947	\$ 4,103,690	\$ 8,289,734
Annual Water Sales (Kgal)	15,405,111	4,609,929	2,648,644	4,120,233	65,046	1,688,874	2,272,385
Rate Rev. Req. / (Kgal)	\$ 3.214	\$ 3.716	\$ 2.963	\$ 2.902	\$ 2.782	\$ 2.430	\$ 3.648
Rate Rev. Req. / Customer	\$ 96.890	\$ 44.108	\$ 149.873	\$ 262.753	\$ 150.789	\$ 4,885.345	\$ 365.122
Current Rate Revenue	\$ 49,509,119	\$ 16,084,565	\$ 7,683,260	\$ 12,429,198	\$ 444,556	\$ 4,438,369	\$ 8,429,171
Total Rate Revenue Req.	\$ 49,509,119	\$ 17,130,221	\$ 7,848,224	\$ 11,956,303	\$ 180,947	\$ 4,103,690	\$ 8,289,734
Over/(Under) Recovery	\$ -	\$ (1,045,656)	\$ (164,964)	\$ 472,896	\$ 263,609	\$ 334,679	\$ 139,437
Estimated Total Revenue		32.5%	15.5%	25.1%	0.9%	9.0%	17.0%
System Revenue Requirement by Class		34.6%	15.9%	24.1%	0.4%	8.3%	16.7%
Over / (Under) Recovery Percentage	0.0%	-2.1%	-0.3%	1.0%	0.5%	0.7%	0.3%

APPENDIX D – RATE STRUCTURE ANALYSIS

Supporting Schedules

Water Rates**Monthly Base Facility Charge per Equivalent Residential Unit**

Customer	Current Rates	Proposed Rates
All Classes (Inside City Limits)	\$ 11.50	\$ 11.50
All Classes (Outside City Limit)	\$ 14.95	\$ 14.95

Monthly Volume Charge

Current Usage Ranges per ERU	Current Rates	Proposed Usage Ranges per ERU	Proposed Rates
Inside City Limits			
0 to 5,000 gals	\$1.79	0 to 6,000 gals	\$1.80
5,000 to 10,000 gals	\$2.24	6,000 to 12,000 gals	\$2.49
10,000 to 20,000 gals	\$3.36	12,000 to 20,000 gals	\$3.65
20,000 to 40,000 gals	\$5.04	20,000 to 40,000 gals	\$4.61
40,000+ gals		40,000+ gals	\$5.10
Outside City Limits			
0 to 5,000 gals	\$2.33	0 to 6,000 gals	\$2.34
5,000 to 10,000 gals	\$2.91	6,000 to 12,000 gals	\$3.24
10,000 to 20,000 gals	\$4.37	12,000 to 20,000 gals	\$4.75
20,000 to 40,000 gals	\$6.55	20,000 to 40,000 gals	\$5.99
40,000+ gals		40,000+ gals	\$6.63

Non-Residential Monthly Volume Charge

Customer Class	Current Rates	Proposed Rates	Percent Change
Inside City Limits			
Muilti Family	\$2.22	\$2.51	13%
Commercial	\$2.46	\$2.59	5%
Construction	\$4.07	\$4.07	0%
Industrial	\$2.54	\$2.63	4%
Landscaping	\$3.28	\$3.51	7%
Outside City Limits			
Muilti Family	\$2.89	\$3.26	13%
Commercial	\$3.20	\$3.37	5%
Construction	\$5.29	\$5.29	0%
Industrial	\$3.30	\$3.42	4%
Landscaping	\$4.26	\$4.56	7%

Sewer Rates

Monthly Base Facility Charge per Equivalent Residential

Customer	Current Rates	Proposed Rates
All Classes	\$ 10.30	\$ 10.30

Monthly Volume Charge

Customer Class	Current Rates	Proposed Rates	Percent Change
Muilti Family	\$1.84	\$1.84	0.0%
Commercial	\$2.82	\$2.82	0.0%
Dry Cleaners	\$7.91	\$7.91	0.0%
Restaurants and Bakeries	\$7.91	\$7.91	0.0%
Commercial Food sales	\$4.58	\$4.58	0.0%
Commercial Other	\$3.06	\$3.06	0.0%