



## MEMORANDUM

TO: Mayor and Council  
FROM: Howard S. Lazarus, City Administrator  
DATE: April 4, 2018  
SUBJECT: Water/Sewer Rate Information

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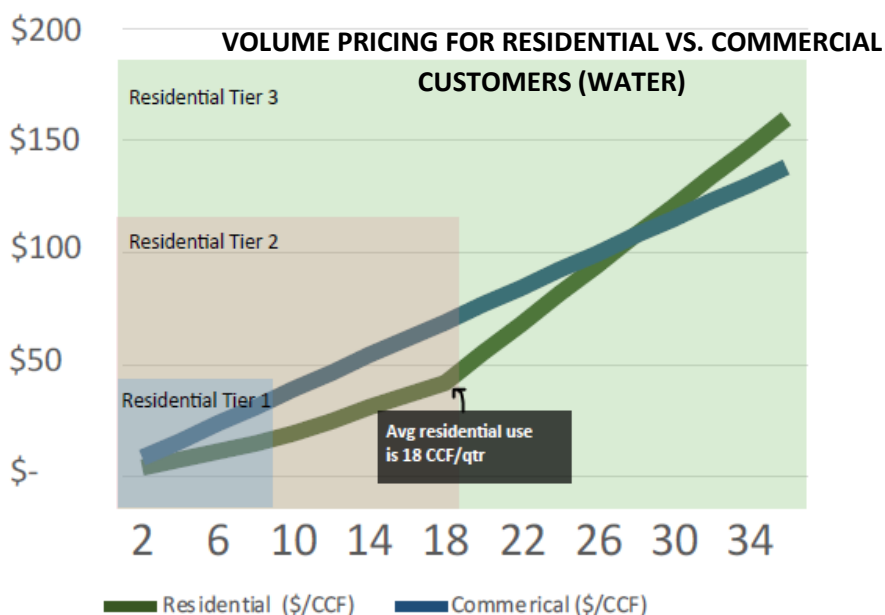
I am providing the attached memorandum from staff in response to Council's request for information that the Council Members can use to better explain and respond to constituent questions on the proposed restructuring of water and sewer rates. The recommended revisions stem from the recently completed cost of service study and are reflective of best practices and legal requirements.

As always, please do not hesitate to contact Mr. Craig Hupy or me directly should you have any questions or require additional information.

cc: C Hupy  
M Praschan  
S Higgins

## Cost of Service Study

- The City completed a Cost of Service study using the best available information to determine what customers should be paying for the water and sewer services they use.
- The costs to maintain and invest in our water and sewer systems must be recovered based on how customers use the systems.
- It is standard for utilities to conduct these types of studies, which the City last conducted in 2003.
- Stantec Consulting, who led the study, is a national expert on rate setting and based all proposals on legal and industry standard methodology.
- A cross-section of the community participated via surveys, focus groups and a public advisory committee.
- Millions of data points were used to propose the tiered rate sizing and prices for residential customers, which accurately accounts for the known ways in which those customers use water.
- The data analysis identified a new customer class, multi-family. Pricing for the Multi-family class is based on the adjusted costs to serve that particular class.
- Some costs do not vary based on usage, such as billing costs. However, some costs do vary based on how a class uses water. Rates presented propose that the classes who drives these costs pay their fair share.
- Affordability is one issue, among many, examined as part of the study. It was not the reason that the study was originally undertaken.
- Industry standards do not exist for essential use of water in commercial properties; however, standards do exist for essential use of water in residential properties. As such, these standards were used to establish the residential inclining block structure and tier sizing; as well as, a flat rate structure for commercial and multi-family customers.
- When considering the new rate structure, pricing for each tier vs. typical consumption was taken into account. Until a customer exceeds 28 CCFs they are paying less than a commercial customer for water used, which reflects the cost to serve.
- The graphic below demonstrates the volume pricing for residential vs. commercial customers for water. Ninety-five percent (95%) of residents use less than 36 CCFs per quarter.



- The full presentation and explanation of the study's findings can be viewed at: <https://youtu.be/aLtxZgk7loM>

Questions from Councilmember Lumm:

First, let me thank you again for the responses to my questions on this. It is appreciated, but sorry, I have a couple more.

During Monday's discussion, both of you indicated on a couple of occasions that commercial water use volume is constant and doesn't peak like it does for residential. That wasn't my recollection of what I'd seen before, but I didn't follow-up last night because I wasn't sure.

Anyway, I reviewed the material from our March 12th work session, and on slide 9, it appears to illustrate that commercial usage does in fact peak like residential – and actually, the amount of variation looks like it is more for commercial than for residential.

Although the actual numbers are not on the slide, if the colored increments in the bars on the slide are accurately depicted, it suggests that:

- the commercial peak volume in July is roughly double the volume in February while residential in July is less than double February – if accurate, that says the percentage volatility is greater for commercial than residential
- the commercial peak volume in July is roughly 15M gallons more than February while the residential peak in July is less than 10M gallons more than February – if accurate, that says the absolute level of volatility is also greater for commercial than for residential

Can you please confirm these numbers on slide 9 of March 12th ? And if the numbers say what I think they say, why would you indicate commercial was constant? I must be missing something.

I think it's important Council understands this clearly as this peaking concept is at the core of the study itself (and as a result, the new rates). The existing rate structure has usage-based tiers for both commercial and residential. This proposal adds a tier to residential, but eliminates the tiers for commercial (it's now one flat rate). Eliminating the commercial tiers just doesn't seem to me to be consistent with the key underlying basis of the study or with the philosophical objective of disincentivizing discretionary water use.

Also, I've asked twice now what impact the proposed re-structuring will have on UM – will they pay more or less and roughly how much? While the responses have indicated the UM will pay the same rates as others in the respective classes, they have not answered the question. In the most recent response on Monday, it was also indicated that “to pull and itemize all UM accounts and determine impacts to each account, and/or collectively to all accounts, would require significant staff efforts.”

I understand, and am not asking for a major staff effort. I'd think there ought to be a relatively simple analytical way to determine the directional impact on UM of the proposal, but perhaps not. Again, I'm not interested in refined numbers, just rough, directional impacts.

But if you'd prefer not to take any time to roughly estimate the impact, that's OK - just let me know, and please also let me know if there's a database I can access to work with myself?

**Staff Response:**

I think the intentions of what was said were perhaps not clear. The commercial class does in fact peak the system, and that peak is recovered in the costs that are paid per unit of water. To create a class of customers, there must be a rationale, data, and system to track how the usage of a class as a whole uses water differently from another class. As a class, it is well established and supported by data that residential customers use water differently than commercial, multi-family, and water only customers. The City's billing system and metering data indicated that residential customers (as a group) use water differently, and therefore impact the system differently, than other classes or groups of users.

To break a class such as the non-residential class of customers into different classes of customers, there needs to be a rationale, data, and system for developing and administering a structure that is based on the usage of and cost to serve each of those customer classes. Within the commercial (non-residential) class there is a wide variety of business types with different levels of water usage requirements and metering configurations, such that charging a tiered volumetric rate for this customer class as a whole would not be appropriate or based the usage patterns of customers. While the City does presently have a tiered system for non-residential users, approximately 98% of all consumption by non-residential customers is within the first tier, effectively rendering the current tiered system a uniform rate structure. A uniform rate structure for non-residential customers is also the most common industry practice.

For example, a small office downtown would use about 20 CCF throughout the year, and a restaurant with the same square footage would use 100 CCF throughout the year, with neither customer imposing notable peak demands on the system during the summer. If we were to determine a higher rate tier to be at 50 CCF, that would be inappropriate to charge the restaurant more for 50 of their 100 CCFs, because their consistent use throughout the year is not contributing to the cost that is driving the commercial peak to the system. Nevertheless, and for the same reasons, the rate developed for non-residential customers covers the cost of the peaking caused by non-residential customers as a class.

Because non-residential customers have no standard activity or usage that can be identified, due to the variations among non-residential customers and uses, the data does not exist to be able to allocate the cost of service in the pricing structure as is done for residential customers. In the absence of the data, system, and resources to establish and maintain individualized customer-specific tiers, a flat rate is not only based on the data that is available, but is the most equitable. The same rationale holds true for multi-family residential, because there are multi-family units that have 5 dwelling units on one meter, and multi-family units that have 50 dwelling units on one meter.

For residential customers, far more data on essential indoor and reasonable outdoor water use is available to use as a rationale for the sizing and pricing of the inclining block rate tiers for the class. There are national studies on indoor water usage that are available to size the first two tiers based on industry standards. The pricing for each tier reflects the allocated proportion of the average day, maximum day, and peak hour costs for the residential demands in each respective tier. Beyond the initial tiers, GIS data allowed us to identify average parcel size and irrigable area for typical residential properties to size the amount of water consumption in tier 3 and tier 4. The pricing of tiers 3 and tier 4 were again determined in proportion to their average day, maximum day, and maximum hour peaking costs. These tiers have a greater allocation of these costs due to their contribution to the system peak.

Relative to the comparison of current revenues as compared to the cost to serve, a larger variance was observed for the residential class as compared to the commercial class. In the current rate structure,

commercial customers pay closer to the amount that reflects the cost to serve, whereas, that is not the case for residential. When determining the pricing for residential customers, the City needs to recover an additional \$1.69 million for residential customers. In contrast, the City's current rates for commercial customers are capturing \$0.52 million more than the cost to serve the commercial class.

The proposed pricing and structure use an industry standard methodology to distribute and recover system costs with the utmost caution to ensure that all decisions are defensible based on available data.

The University of Michigan has approximately 400 different accounts that are not identified in a uniform way in our billing database. As such, we are unable to give you customer-level detailed impacts.

However, we have done some high-level analysis, and because of the wide variety of types of properties they own/maintain (water only, non-residential, etc.), the amount they would pay under the new rate structure would not be significantly different, either higher or lower, than they pay now.



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TO: Mayor and Council

FROM: Howard S. Lazarus, City Administrator

CC: Craig Hupy, Public Services Area Administrator  
Marti Praschan, Chief of Staff, Public Services

SUBJECT: Council Agenda Responses

DATE: April 2, 2018

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**CA-6 – Resolution to Approve Amendment #1 to the City’s Contract with Tex Hahn Media, Inc. (“Tex Hahn”) for the Public Outreach and Marketing Plan for Utilities (the “Contract”) (\$23,165.00)**

**Question:** Specifically, what type of public engagement is planned (neighborhood meetings, public meetings, etc.) and have any meetings been scheduled? Also, whether it’s public meetings or other forms of communication, is it two-way communication including a mechanism for public input? (Councilmember Lumm)

**Response:** The RFP was for a “public education and marketing plan.” Thus, Hahn Public’s recommendations were focused on developing a communication plan that would equip the A2 staff with the information, knowledge and data to properly engage with residents on issues regarding stormwater. The RFP did not ask for the consultant to engage with the public in the form public meetings etc. Thus, the only form of gathering public input (that is within the stipulations of the RFP) is pre and post surveys, focus groups and in-depth interviews.

**Question:** Does city staff agree the primary purpose of the contract amendment is to “gain support for the rate adjustment recommended by the COS” ? (Councilmember Lumm)

**Response:** No, that intent/purpose of the survey is indicated in the response to the related question below.

**Question:** Does Tex Hahn have a local/Michigan office? Did any Michigan firms submit proposals in response to this RFP? (Councilmember Lumm)

**Response:** Tex Hahn does not have a local/Michigan office. Yes, the following firms submitted proposals:

Advance 360:

- New York, NY
- Grand Rapids, MI

Q&M:

- Ann Arbor, MI
- Traverse City, MI
- Los Angeles, CA

Lambert Edwards, & Assoc:

- Grand Rapids, MI
- Lansing, MI
- Detroit, MI

MCCI:

- Detroit, MI

The Allen Lewis Agency:

- Farmington Hills, MI

Hahn Public:

- Austin, TX

**Question:** I'll readily confess I'm not a survey structure expert, but it just wasn't clear to me what the purpose of the survey actually was – could you please clarify the purpose and what information/knowledge we were trying to acquire by conducting it? (Councilmember Lumm)

**Response:** The purpose of the survey is to:

1. Gather baseline knowledge on stormwater and water issues in A2.
2. Gather baseline perceptions on the role of individual to improving water quality in A2.
3. Measure residents' perception on government trust, expertise and fiscal responsibility.
4. Measure the effectiveness of existing and new messaging in explaining stormwater and water rates to the average resident.

All of the above purposes are important to building a holistic education and outreach campaign that can be used for several years and easily updated and repurposed by the staff.

**Question:** The first question of the survey asked for zip code and allowed folks to check several non-Ann Arbor zip codes including two in Canton (48187, 48188), one in

South Lyon (48178), and one that's primarily Pittsfield Township (48108). Are we using responses from non-city residents and if so, why would we do that? Also, what is the survey household distribution/sampling plan? (I received one survey (appropriate) which was sent to my [a2gov.org](http://a2gov.org) address. I am aware, e.g., that some city staff have received > 1 electronic survey (i.e., sent to their a2gov and home addresses.) (Councilmember Lumm)

**Response:** Non-city resident responses are not being used. The question on the non-A2 arbor zip codes were used as a screener- a mechanism to disqualify anyone who is not from A2 or someone who might be trying to game the system. The survey link was distributed via Facebook. Thus far, we have all demographics represented that reflect the current make-up in A2. The reason some staff may have received the survey more than once is because they are part of an official city listserv. While we have restricted participants from taking the survey twice by tracking their IP addresses, there are just some cases where we can't prevent it. Even then, the number of double responses is not significant to impact the overall dataset.





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TO: Mayor and Council

FROM: Howard S. Lazarus, City Administrator

CC: Derek Delacourt, Community Services Area Administrator  
Craig Hupy, Public Services Area Administrator  
Nick Hutchinson, City Engineer  
Brett Lenart, Planning Manager  
Andrea Plevak, Director, OCED  
Marti Praschan, Chief of Staff, Public Services  
Cresson Sloten, Systems Planning Manager

SUBJECT: Council Agenda Responses

DATE: May 7, 2018

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**CA-8 – Resolution to Approve FY 19 Allocations to Non-Profit Entities for Human Services - \$1,247,529.00 (General Fund)**

**Question: Q1.** Can you please provide the list of non-profit organizations that applied for “funding for school-aged youth” (7-12) services under the current round? I’m assuming the Coordinated Funding Model has not changed and this stands as one of the five impact/priority areas targeted for investment. (Councilmember Lumm)

**Response:** The requested list is attached.

**Question: Q2.** Can you please provide the not-for-profit school-aged youth serving organizations’ requested and approved funding (a breakdown of funding sources (i.e., City, County, UW, AAACF, St Joes, CDBG) would also be appreciated). (Councilmember Lumm)

**Response:** A list of agencies and their funding recommendations is included in the funding resolution.

temporary parking lot activities they have hosted in past, and any permanent development on that 1.8 acres would not generate enough impacts to hold back rezoning at this time. However, the Planning Commission did indicate serious concerns about rezoning Parcel 2 without an area plan showing potential permanent development. Most Planning Commissioners seemed to imply that rezoning may be appropriate if more information, analysis and long range plans are provided but one seemed to oppose rezoning Parcel 1 at all until a site plan for a new development is proposed. That Commissioner asked for staff and the applicant to explore alternatives to allowing parking lot activities without rezoning as part of the returning petition.

**Question:** Also on C-1, do we have any sense of the petitioners view of this partial approval and considering the balance later? Also, do we have any input on this proposal from the other Briarwood Mall owners? (Councilmember Lumm)

**Response:** The applicants were somewhat satisfied with the partial approval as it does allow an opportunity to accommodate long-standing vendors who were anticipating being able to continue holding summertime events. No comments were received from any other land owner (of any sort) or resident in response to the citizen participation notification, the public hearing notice, or at the public hearing.

## **C-2 - An Ordinance to Amend Sections 2:61 through 2:64, and 2:69, and to Repeal Section 2:73 of Chapter 29 (Change Water, Sewer, and Stormwater Rates) of Title II of the Code of the City of Ann Arbor**

**Question: Q1.** In the past when we've approved rate increases, the cover memo included the revenue impacts. I'm assuming they are not included here because the water and sewer rate changes are revenue neutral (as indicated on slide 30 of the March 12<sup>th</sup> Work Session). Can you please confirm the water and sewer rate changes in C-2 are in fact revenue neutral, and if not, what is the net revenue impact of each? (Councilmember Lumm)

**Response:** Your assumption is correct; the rate class changes and rate adjustments are revenue neutral.

**Question: Q2.** On water rates and revenues, is the plan (as indicated on that same slide 30 of the March 12 Work Session) to raise rates on January 1, 2019 by 6%? Is that reflected in the FY19 proposed budget? Is the plan also to raise water rates again by 6% on July 1, 2019? (Councilmember Lumm)

**Response:** The FY 19 proposed budget includes a proposed revenue requirement increase of 6%. The financial plan going forward includes the revenue requirement increases as indicated on slide 30 of the March 12 Work Session presentation; however, revenue requirements and rate adjustments are reviewed annually.

**Question: Q3.** Same questions on sewer rates and revenues - is the plan (as indicated on that same slide 30 of the March 12 Work Session) to raise rates on January 1, 2019 by 7% and is that reflected in the FY19 proposed budget? Is the plan also to raise sewer rates again by 7% on July 1, 2019? (Councilmember Lumm)

**Response:** The FY 19 proposed budget includes a proposed revenue requirement increase of 7%. The financial plan going forward includes the revenue requirement increases as indicated on slide 30 of the March 12 Work Session presentation; however, revenue requirements and rate adjustments are reviewed annually.

**Question: Q4.** On stormwater rates and revenues, slide 31 of the March 12 work session indicated that stormwater rates would be increased by 14% and that's what is reflected in C-2 (\$678.81/ acre of impervious surface vs current \$595.45) . How much incremental revenue will that generate and is the plan still to increase stormwater rates by 13% on July 1, 2019? (Councilmember Lumm)

**Response:** Correct, the proposed rate increase in C-2 implements the Storm Water Level-of-Service recommendations as represented in the slide. The 14% proposed increase will generate an approximate additional \$1,261,000.

**Question: Q5.** The cover memo indicates that the impact of C-2 on the average single family residential customer is an increase of 11% (\$77 a year). Can you please confirm those numbers are just the C-2 impact itself and do not include water and sewer increases in January?

For the other two scenarios you had March 12<sup>th</sup>, my math is that C-2 will have the following impacts:

- Scenario 1 (2 person household w/minimal outdoor usage) = \$78/year (19%)
- Scenario 3 (4 person household w/moderate outdoor usage) = \$25/year (19%)

Can you please confirm if those calculations are accurate? (Councilmember Lumm)

**Response:** The average single family residential customer uses 18 CCF's per quarter and resides in Tier 2 for stormwater. The calculation in the cover memo in C-2 is representative of the total utility bill increase for the average residential customer, which calculates to be an 11% increase. The March 12 presentation is representative of the impacts of the water and sewer increases only. The corrected calculations are below:

	Current			Proposed				
Water Units				Water Units				
7	1.55	10.85		8	1.77	14.16		
<u>1</u>	3.37	3.37						
8								
	Customer Charge	11.25				20.89		
Sewer Units				Sewer Units				
8	4.58	36.64		8	5.19	41.52		
	Customer Charge	11.25				13.09		
		73.36				89.66		
		<u>-7.336</u>				-8.966		
	Quarterly	66.024				80.694		
	Annually	264.10				322.78	58.68	
							<b>22% Annual Increase</b>	
	Current			Proposed				
Water Units				Water Units				
7	1.55	10.85		9	1.77	15.93		
21	3.37	70.77		9	2.83	25.47		
<u>8</u>	5.89	47.12		<u>18</u>	6.57	118.26		
36	Customer Charge	11.25		36		20.89		
Sewer Units				Sewer Units				
36	4.58	164.88		36	5.19	186.84		
	Customer Charge	11.25				13.09		
		316.12				380.48		
		<u>-31.612</u>				-38.048		
	Quarterly	284.51				342.432	-57.92	
	Annually	1,138.03				1369.73	231.70	
							<b>20% Annual Increase</b>	

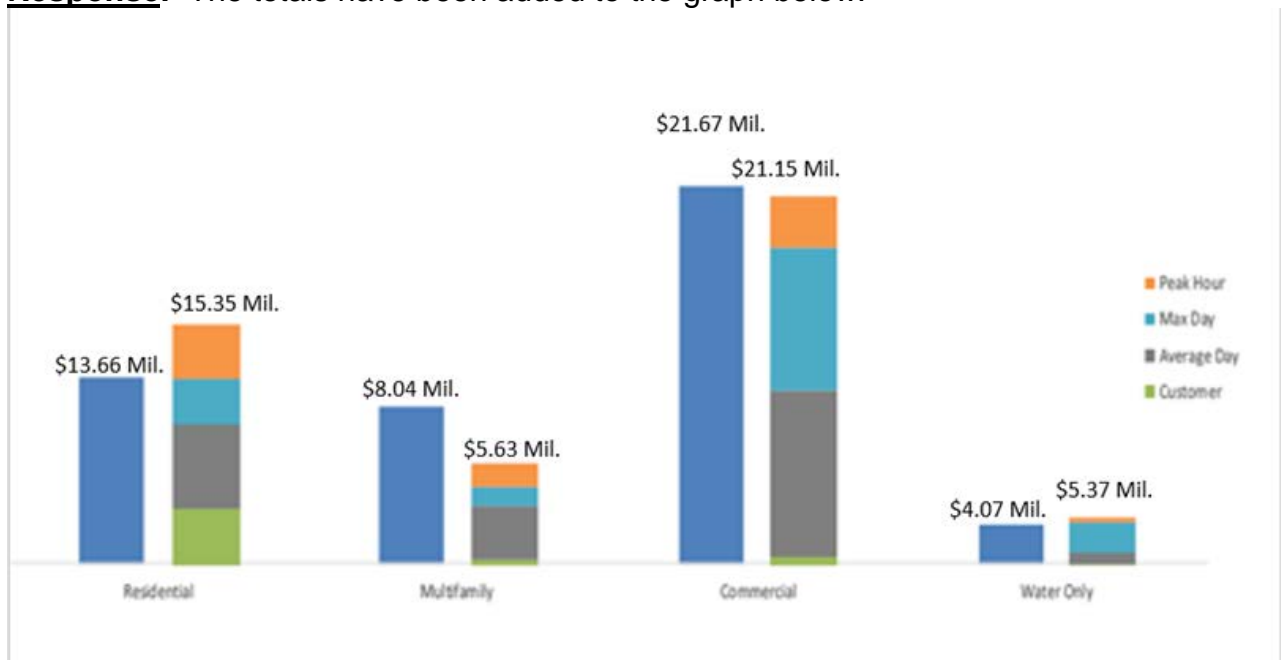
**Question: Q6.** In your responses to my previous questions (and thanks again for those), the response to Q12 regarding UM didn't answer the question and I'd appreciate a response. It would seem on the surface that UM would be paying a lot less given the significantly reduced multi-family commodity rate (\$2.13 per unit vs the existing commercial rate ranges of \$3.81 per unit to \$12.44 per unit) coupled with the examples shown on slide 23 of the March 12<sup>th</sup> presentation where hospitals will be 5% less and

professional offices 11% less. Can you please provide an estimate of how much more or less the UM will be paying? (Councilmember Lumm)

**Response:** Cost-of-Service implementation impacts are typically derived for customer classes not individual customers. To pull and itemize all University of Michigan accounts and determine specific impacts to each account, and/or collectively to all accounts, would require significant staff efforts.

**Question: Q7.** Also in your responses to my previous questions, there was a graphic (Figure 2) without numbers or scale. Can you please provide the numbers and scale? (Councilmember Lumm)

**Response:** The totals have been added to the graph below.



**Question: Q8.** The current rate structure includes 3 commercial rates based on peak vs average demand which is conceptually similar to the residential tier rate structure. Given that this peak vs average demand seems to be at the core of the study and a major driver of costs, why would we be eliminating the commercial tiers while expanding the number of residential tiers? We've always been told that one of the primary reasons there are volume-based tiers within a customer class is to incentivize behavior and why would that not apply to all customer groups that have large peak to average demand (and commercial does)? (Councilmember Lumm)

**Response:** Because of the variations in types of businesses, activities and uses of water on commercial properties, industry standards do not exist to identify what use of water is essential in commercial properties. For example, a brewery uses more water than a commercial office building; however, both use water in a similar pattern. The

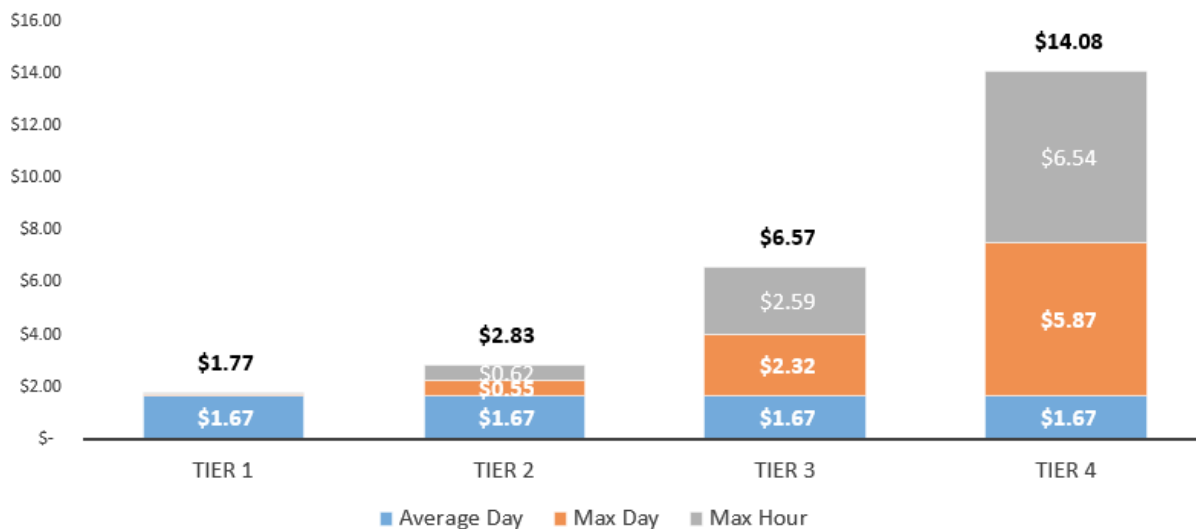
most appropriate way to recover costs from the non-residential class is to accumulate and distribute costs through a uniform rate. Industry standards do exist to identify what use of water is essential in residential properties; therefore, the most appropriate way to costs is through a tiered rate structure.

**Question: Q9.** Also with regard to peak demand vs average demand, why wouldn't it make more sense to have fixed charges cover average demand and the volume-based rates cover the incremental peak demand? (Councilmember Lumm)

**Response:** Trying to identify and place average usage into the fix charge limits our ability to appropriately allocate cost-of service for the "average use" to the different classes.

**Question: Q10.** In response to my question #5 requesting the cost-to-serve data that supports charging a single customer almost 8 times more for their 37<sup>th</sup> CCF of water than for say their 9<sup>th</sup> CCF, the response was that "a rate structure is necessarily aggregated to allow for the construction of implementable tiers, and can not necessarily be decomposed to specific levels of consumption comparisons." I understand that and probably asked the question too literally. What I'd like to see is the cost of service data (the actual numbers as I understand the concept) that demonstrates the cost of service for a residential customer is so dramatically different at tier 4 volumes than at tier 1 volumes? (Councilmember Lumm)

**Response:** We are currently working on material that is able to communicate this information to you and will be provided as soon as it is complete. In the meantime, the below graph should provide you some context as to the level of peak costs for each residential tier.



**Question: Q11.** In response to my question #7, it was stated that multi-family “displays a distinctly different profile that other customers in the commercial rate class” Can you please elaborate on that -- what you mean by a distinctly different profile?  
(Councilmember Lumm)

**Response:** The analysis of patterns and volume of water use by the multi-family properties is unique in that the use generally is absent of peak and for which the cost to provide service is both lower and consistent throughout the year.

#### **C-4 - An Ordinance to Amend Section 9:366 of Chapter 119 (Noise Control)**

**Question:** Regarding C-4, I’m not clear what impacts there might be by adding snow removal equipment to the exemptions in the ordinance. Can you please clarify if there are any every day real-world impacts – for example, does this mean someone can now use their snow blower at any time day or night? (Councilmember Lumm)

**Response:** Yes, someone could use their snow blower at any time day or night.

#### **C-5 - An Ordinance to Amend Sections 7:604 and 7:606 of Chapter 96 (Medical Marijuana Facilities) of Title VII of the Code of the City of Ann Arbor**

**Question:** Regarding C-5, I recognize that none of the 28 provisioning centers are within 600 feet of another provisioning center, and that there were 6 more requests beyond the 28 that were within 600 feet. How many (if any) of the 28 are within 1,000 feet of another provisioning center? (Councilmember Lumm)

**Response:** Since earlier calculations, the City has now received petitions for a total of 36 provisioning centers:

- 9 Approved centers (4 w/in 1,000 feet of another approved center, 1 w/in 1,000 feet of center under review)
- 16 centers under review (2 w/in 1,000 feet of another approved center, 5 w/in 1,000 feet of another center)

2 applications were denied or closed; 9 applications are on-hold as they are within 600 feet of another application

#### **DS-2 - Resolution to Approve New Fees for Adding Additional Quadricycles to a Commercial Quadricycle Operating Permit**

**Question:** Regarding DS-2, it makes sense to have a fee that’s less for additional quadricycles added for the same operator than the fee for the first quadricycle of that owner. In the past, did we charge the full fee for each quadricycle or didn’t we have any



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TO: Mayor and Council

FROM: Howard S. Lazarus, City Administrator

CC: Tom Crawford, CFO  
Derek Delacourt, Community Services Area Administrator  
Craig Hupy, Public Services Area Administrator  
Brett Lenart, Planning Manager  
Molly Maciejewski, Public Works Manager  
Marti Praschan, Chief of Staff, Public Services  
Cresson Slotten, Systems Planning Manager  
Robyn Wilkerson, Human Resources Director

SUBJECT: Council Agenda Responses

DATE: May 21, 2018

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**CA-9 – Resolution to Close Streets for the Townie Street Party - Ann Arbor Mile-Dart for Art on Monday, July 16, 2018**

**Question:** Why does the street closure notice for the race not include pro-active notice of affected homes, businesses, and nonprofits? Is there any monitoring of notice? (Councilmember Warpehoski)

**Response:** The route for this particular race mostly impacts the University of Michigan, which is part of the notification process. The State Street District notifies impacted businesses on this route as well. At times, this is a duplication of effort as some on this list are also notified via the road/lane closure subscription. Residents and businesses are encouraged to sign up for this subscription via this link:

[http://service.govdelivery.com/service/subscribe.html?code=MIANNA\\_3](http://service.govdelivery.com/service/subscribe.html?code=MIANNA_3)



**CA-10 –Resolution to Approve the Collective Bargaining Agreement with the Command Officers Association of Michigan (COAM), effective January 1, 2018 - December 31, 2020**

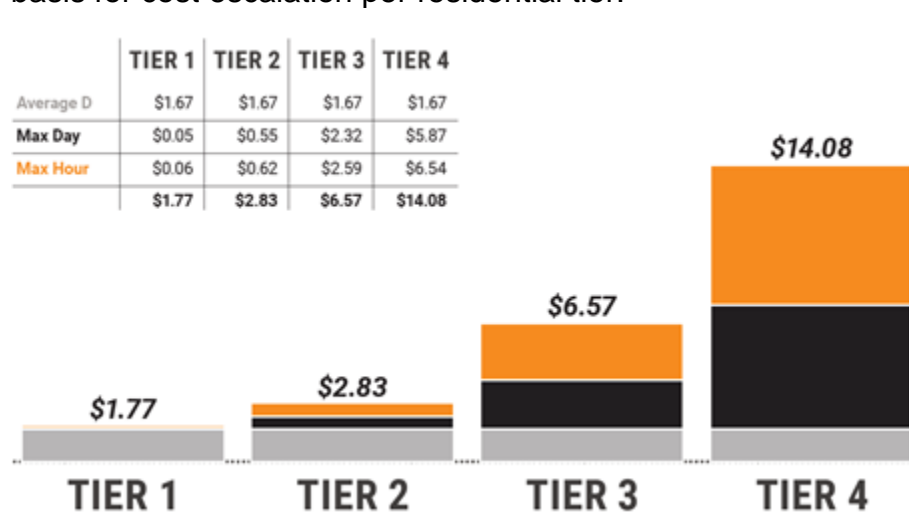
**Question:** Regarding CA-10, how many employees are in this bargaining unit and is this unit under the city’s new dual pension plan structure for new hires?  
(Councilmember Lumm)

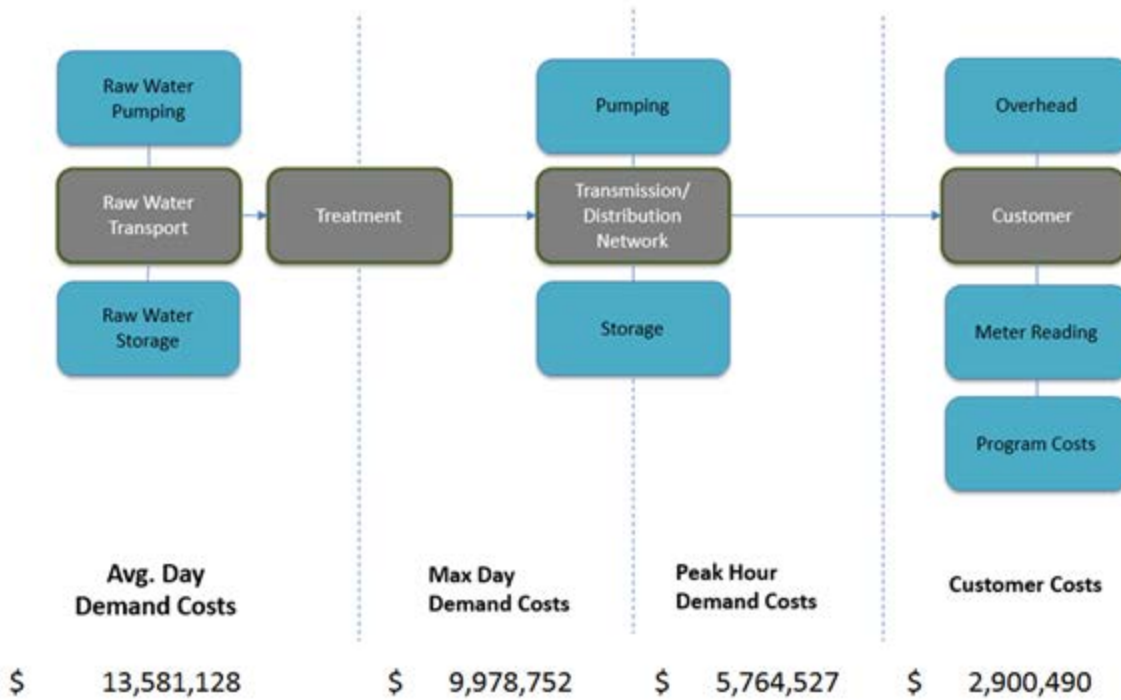
**Response:** There are currently 23 members of this collective bargaining unit. This unit is not under the hybrid plan, as they are a promotional only group who can only take members from the AAPOA. As you remember, the AAPOA is not under the hybrid.

**B-2 - An Ordinance to Amend Sections 2:61 through 2:64, and 2:69, and to Repeal Section 2:73 of Chapter 29 (Change Water, Sewer, and Stormwater Rates) of Title II of the Code of the City of Ann Arbor**

**Question:** Q1. In the May 7 response to my Q10 on the actual cost of service data that demonstrates why the cost of service for a residential customer is so dramatically different at Tier 4 volumes than at Tier 1 volumes, the response indicated that “we are currently working on material that is able to communicate this information to you and will be provided as soon as it is complete.” Is it complete? If so, can you please send it today and if not, when do you expect it will be complete? (Councilmember Lumm)

**Response:** Below please find the breakdown of the cost allocation that reflects the basis for cost escalation per residential tier.





**Question:** Q2. On May 7, you spoke of a “bulk rate” for Scio and Ann Arbor Townships. For the most recent 12 month period you have data for, can you please provide the total gallons (or CCF) of water provided and the payments received for both Scio and Ann Arbor Township as well as the total gallons (or CCF) provided, and payments received, for City of Ann Arbor customers? (Councilmember Lumm)

**Response:** The information provided below is from FY 2017 usage data:

	<b>Consumption (ccfs)</b>	<b>Billed Amt (@ Gross)</b>	<b>Billed Amt (@ Net)*</b>
Ann Arbor Twp	201,552	\$846,518	\$761,866
Scio Twp	441,039	\$1,852,364	\$1,667,128
<b>City of Ann Arbor</b>	<b>5,642,408</b>	<b>\$21,289,239</b>	<b>\$19,160,315</b>

\*Net includes early payment discount.

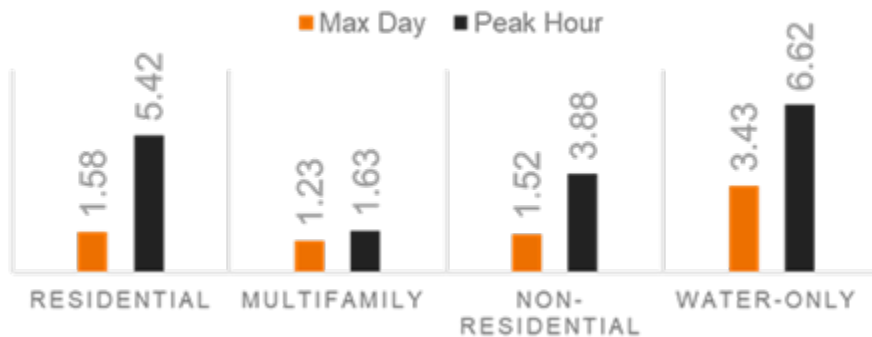
**Question:** Q3. Thank you for the May 18 response. As mentioned, I was quite surprised to hear it said a few times at the May 7 meeting that commercial volume is constant and does not peak and appreciate your confirming now that commercial

volume – like residential – does in fact peak in the summer months. Although your May 18 response is detailed and perhaps I missed it, I did not see an explanation of what causes the commercial summer peak demand – can you please clarify? Is it outdoor use like residential or something else? You cite an example of an office where there is “no notable peak demands in the summer”, but something is causing commercial demand to peak in the summer – what is it? (Councilmember Lumm)

**Response:** Because non-residential customers have no standard activity or usage that can be identified, due to the variations among non-residential customers and uses, the data does not exist to be able to allocate the cost of service in the pricing structure as is done for residential customer. This includes the ability to determine essential or non-essential usage.

**Question:** Also, your May 18 response did not answer my question whether my interpretation of slide 9 from March 12 was accurate – that commercial summer peaking is larger than residential in both absolute and percentage terms. Can you please confirm if that is accurate, and if not, what do I have wrong? (Councilmember Lumm)

**Response:** The intention of the graphic on slide #9 was to demonstrate that each class has unique trends in water usage. When viewing the graph of total volume summarized by month, the non-residential difference is proportionately greater; however, each proposed rate class was developed using automated meter data for average day, maximum day, & peak hour. The graphic summarizes the data on a monthly basis whereas peaking factors are determined on a more granular basis using daily and hourly information as indicated below.



**B-5 - An Ordinance to Amend Sections 7:604 and 7:606 of Chapter 96 (Medical Marijuana Facilities) of Title VII of the Code of the City of Ann Arbor (Ordinance No. ORD-18-15)**

**Question:** Regarding B-5 (cap on number of Medical Marijuana Provisioning Centers), the response to my Q at first reading seemed to suggest there are 25 applications (not 28) that were in the queue and met the requirements. If that’s true, and the number in the ordinance cap stays at 28, how will it be decided which other 3 are allowed to move forward – would it be date received or something else? (Councilmember Lumm)



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TO: Mayor and Council

FROM: Howard S. Lazarus, City Administrator

CC: Tom Crawford, CFO  
Derek Delacourt, Community Services Area Administrator  
Teresa Gillotti, Interim Director, OCED  
Karen Lancaster, Finance Director  
Craig Hupy, Public Services Area Administrator  
Susan Pollay, Executive Director, DDA  
Marti Praschan, Chief of Staff, Public Services

SUBJECT: Council Agenda Responses

DATE: June 18, 2018

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**CA-9 – Resolution in Support of Fiscal Responsibility to Save Michigan’s Communities**

**Question:** Regarding CA-9, the resolution mentions 2002 a couple of times. Is that the first year the state did not fully fund the statutory revenue sharing? (Councilmember Lumm)

**Response:** Response: 2002 is the year the State started meaningfully reducing the City’s State Shared Revenue and is the date [www.savemichigan.org](http://www.savemichigan.org) (supported by the MML) utilizes to estimate the impact to each local community.

**CA-10 - Resolution to Amend Ann Arbor City Budget for Fiscal Year 2018 (8 Votes Required)**

**Question:** Please update me regarding the fund balance after the Y-Lot purchase and the expenditure of the \$1,180,000 in this resolution. (Councilmember Eaton)

**Question:** Q3. It appears this \$39K is to pay for services rendered in April and May. Obviously the City will pay for work done by vendors, but why was an amendment not requested in advance, before the costs were incurred? Also, it sounds that this is the last payment for work done and that Carlisle/Wortmann is no longer doing any work for the City. Is that correct? (Councilmember Lumm)

**Response:** At this time we have asked Carlisle Wortman to conclude services until a contract for continued service through the comparative bid has been approved. Building encountered an unexpected increase in services at the end of 2017 into the first part of 2018 that required us to use Carlisle Wortman's services more than we planned. The unanticipated increase in plan review volume was not identified until the costs had been incurred. As soon as they were realized all review was brought back in house however, that did create an immediate decrease in our level of service provision.

**B-2 - An Ordinance to Amend Sections 2:61 through 2:64, and 2:69, and to Repeal Section 2:73 of Chapter 29 (Change Water, Sewer, and Stormwater Rates) of Title II of the Code of the City of Ann Arbor (Ordinance No. ORD-18-12)**

**Question:** Q1. In Madison, they have five residential usage-based water rate tiers and the top per gallon rate is not quite double the bottom rate (actually 77% higher). In Ann Arbor, the proposed top residential rate is almost 8 times the bottom rate (actually 795% higher). In other words, Ann Arbor's penalty for increased usage is (at its maximum) 10 times more than Madison. What causes this major disparity? Does Madison have a dramatically different cost structure than Ann Arbor? (Councilmember Lumm)

**Response:** Although Madison has an inclining block structure similar to Ann Arbor, they have a different regulatory environment. Their current rates were established in September of 2015. In the State of Wisconsin, all municipal utilities are regulated by a public services commission. Madison currently has a rate case with the Public Service Commission on file to increase the charges between the first tier and the fifth tier in the residential class. Data is leading them in a similar direction as Ann Arbor. Their fifth tier is currently priced at \$5.07 and their new proposal is to have it priced at \$9.25. The data, customer usage patterns and cost to serve vary in every community creating the differences in pricing.

**Question:** Q2. In Madison, the multi-family water rate is about the same as the commercial and industrial rates. In Ann Arbor, the commercial rate is almost double the multi-family rate (80% higher). What causes this large disparity? (Councilmember Lumm)

**Response:** Like Ann Arbor, Madison's rates are determined based on the cost to serve. The difference results from different ways in which the customers from Madison and Ann Arbor use water. The proposed pricing in Ann Arbor is based on the information discovered during the cost of service study. Similarly, Madison's rate

structure includes a flat rate for both Multi-Family and Commercial. Madison enacted the multi-family class in 2014. In Wisconsin, customer classes are defined by the Public Service Commission.

**Question:** Q3. Madison has a “public authority” rate class and the rates are about 25% higher than for commercial, industrial and multi-family. What is that “public authority” customer classification? (Councilmember Lumm)

**Response:** Customer classes are defined by the Wisconsin Public Service Commission. Public Authority is defined as: “Public Authority customers includes any department, agency, or entity of local, state, or federal government, including public schools, colleges, and universities.”  
<https://psc.wi.gov/Pages/ForUtilities/Water/Conventional-Rate-Case.aspx>

**Question:** Q4. Also in the response to my benchmarking question, it was stated that Ann Arbor “in recent history, has had a progressive view on rate making.” Please elaborate on what that means? (Councilmember Lumm)

**Response:** Progressive in rate making was intended to mean Ann Arbor is innovative and takes steps to implement new rate structures, when such rate structures are based on data and contribute to a sustainable water system. Installing Automated Meter Infrastructure 15+ years ago, which not only facilitates more accurate and efficient billing, but also collects the data that enables better design of rate structures to cover properly the costs to serve different categories of customers and usage patterns was progressive and still is for the State of Michigan.

**Question:** Q5. Unfortunately, you still did not answer the question I’ve asked several times now which is what causes the Summer peaking in commercial usage. The answer this time is that there are too many accounts to figure it out. What is clear is that the data clearly shows that the summer peaking volume (e.g., the difference between July and February) for commercial is larger on an absolute basis and on a percentage basis than the summer peaking volume (July vs. February) for residential customers. Certainly, a portion of that commercial summer peaking – I’d suspect the majority - results from the same behavior (outdoor usage) we charge residential customers extra for. Please provide your best professional assessment of who and what causes the commercial summer peaking? (Councilmember Lumm)

**Response:** Summer peaking in the commercial or non-residential class is the cumulative effect of 4,000+ accounts. To see which customers’ usage patterns change in the peak month (or in another month for some) would require looking at each of the 4,000 accounts individually. It is the professional opinion of staff that any customer who has water usage greater in July than February, contributes to the system peak. Commercial customers to some degree use more water in the summer months for a wide variety of reasons, some being outdoor irrigation or some being consumption of more water inside due to hotter temperatures and less rainfall. Other rationales could be some customers such as neighborhood centers have a shift in building activities that

relies more heavily on water use in the summer month. There is a wide variety of activities that are supported by water usage in the non-residential class; therefore, individual account analysis would need to be performed. Without looking at each account to see how much more water a particular commercial customers uses in July than in February, it is not possible to identify which customers, or even categories of customers, are using more. Because of the variation, creation of an algorithm to calculate a “peak rate” for a commercial user that would be based on their average day use and then triggered if the customer has a certain percentage increase on any day over their daily average, would be very difficult, would require a unique calculation for each customer, and might not be possible to program into the billing system. Tiered rates based simply on volume of usage would not be an accurate rate for large but non-peaking customers.

We are aware of at least one city that attempted to do this, creating more than 30 sub-classes of commercial customers to try to tailor rates to the patterns of use by members of each sub-class. Despite their efforts, they could not define rate structures for those sub-classes that were accurate and manageable.

The costs to provide service when the commercial class, as a whole, peaks in its usage are incorporating into the calculation of the flat rate for commercial customers. Those costs are fully recovered and not passed on to members of other classes. Use of a flat commercial rate is an accepted, industry practice for commercial customers.

In addition, fundamental to understanding the proposed rates is that any change in the structure of one class of customers, has no impact on the pricing or structure of another class.

**Question:** Q6. Previous responses have stated that the multi-family rate was not developed as a rate for low-income customers, but multi-family properties were identified as a property class that served a number of low income residents. What other new property classes (or customer classes) were examined or was multi-family the only one? If other new property classes (or customer classes) were analyzed, please summarize the findings on why they were rejected?  
(Councilmember Lumm)

**Response:** Multi-family was the only additional class that was examined.

**C-3 – An Ordinance to Replace Previously Repealed Chapter 9 (Model Neighborhood Policy Board) of Title I of the Code of the City of Ann Arbor with a New Chapter, Which New Chapter Shall be Designated as Chapter 9 (City Seal and Flag) of Title I of the Code of the City of Ann Arbor**

**Question:** Regarding C-3, is it typical for cities to have ordinances like this regarding their flags/seals and are violations typically civil infractions with fines of this magnitude?  
(Councilmember Lumm)

## Water and Sewer Cost of Service Study Follow-ups

I have both questions and requests for data – let's start with the data requests.

### Data Requests

- I. **Cost allocations to customer groups** - slide #10 of the presentation showed the revenues and costs for the four customer classifications (residential, multi-family, non-residential, water only). The total costs for the four groups is \$47.5M. Could you please provide the schedules/spreadsheets supporting that slide that show the line item cost detail for the \$47.5M and the allocation amount of each cost element to each group. If not shown or explained on the schedules/spreadsheets, please also provide the allocation methodology and rationale for each cost allocation.

\$47.5M is the combined revenue requirement for both water and sewer service inclusive of offsetting revenues, cash funded capital and use of fund balances. The \$47.5M is inclusive of all Council Approved FY18 Operating and Maintenance Budget as well as the Capital Budgets. The attached spreadsheets allocate the costs of: Water Budget for FY18 (\$32.727 Mil), plus the Sewer System Budget (\$29.229 Mil), less the offsetting Revenues (\$14.476 Mil). Offsetting revenues includes miscellaneous revenues in addition to the use of fund balance. Figure 1 below illustrates how the costs are allocated. The attached spreadsheets shows the line item detail for the cost element to each function. As illustrated in figure 2, those functions were then allocated to the individual customer type on the basis of a) accounts for the customer charge and b) for the commodity (or volumetric) price, the peaking factor was the ratio by which costs were allocated for the daily and hourly peaking factors (daily and hourly were associated with different cost components). As an example, the green part of the stacked bar chart represents the customer charge, those costs are on a per meter basis; the costs allocated to the residential class is directly proportional to number of meters. Whereas, the commercial class consumption data showed that they are the primary contributor to the maximum day demand, therefore they had proportionally more max day costs allocated to that class to recover from revenues.

Stantec is in the process of completing a detailed report inclusive of all details, steps and allocations metrics. The report will show the line item detail for each cost element, allocation methodology and rationale for each cost allocation. Once finalized with staff the report will be available as a public document.

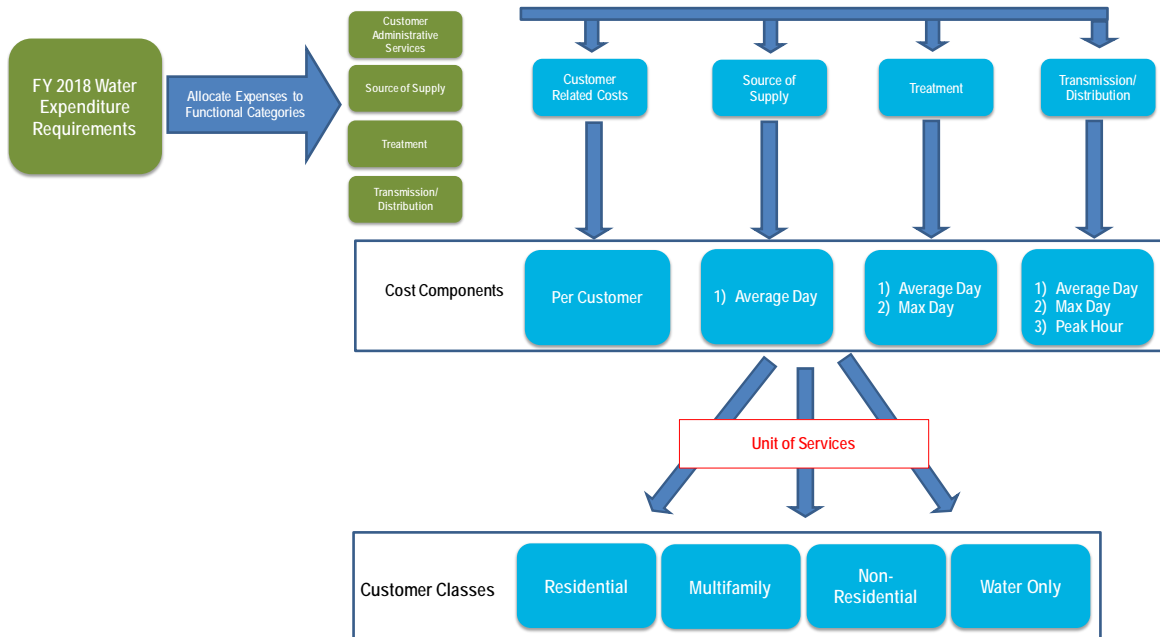


Figure 1: Basis for functionalization and cost allocation for the cost of service study.



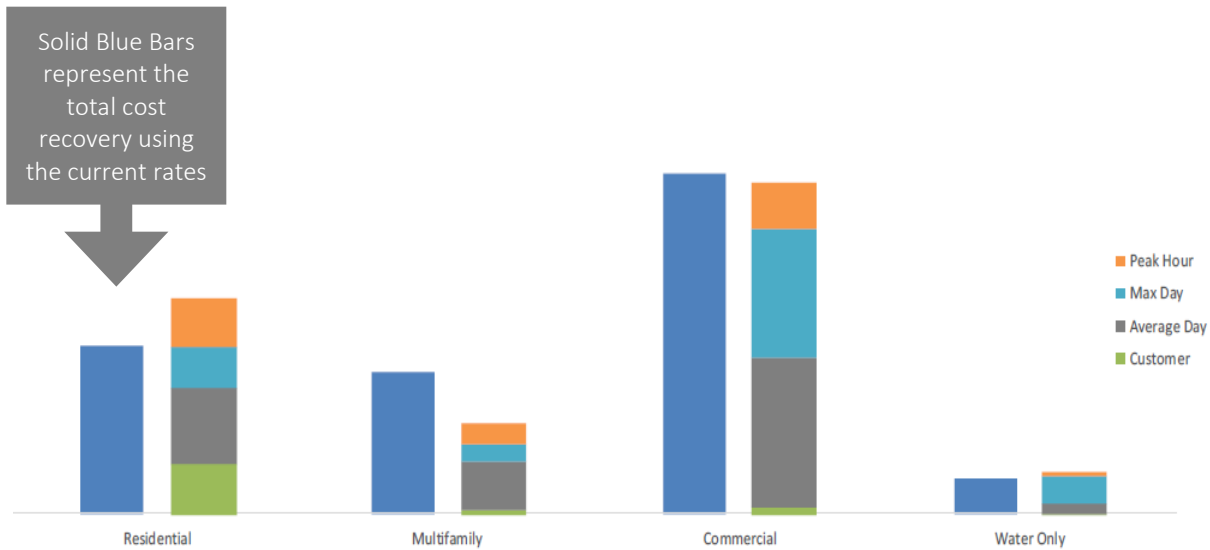


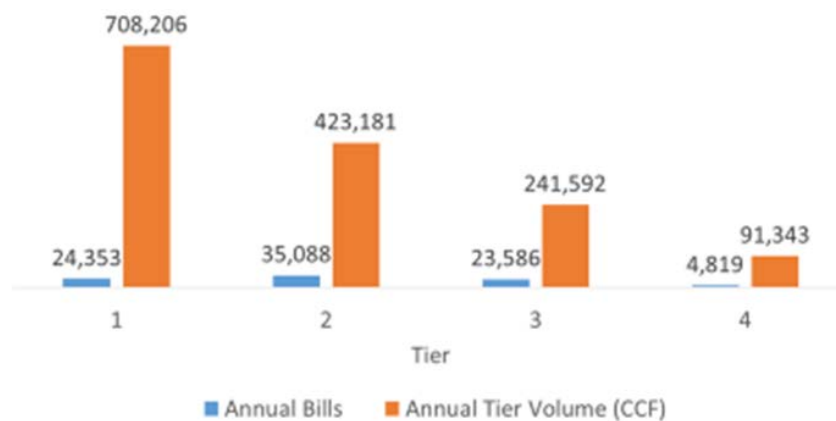
Figure 2: Basis for cost allocation for the water system

The costs necessary for peak day and peak hour services are treatment and transmission/distribution. On the data sheets with water system costs, those costs are in the two center columns, and their totals are on the last page, at the bottom of the columns on the right. Transmission/distribution costs are 39.3% of total costs, and treatment costs are 44.5% of total costs. The costs to provide treatment and transmission/distribution services increase during peak days and hours. For example, a system (pipes and plant) is built to handle not the average day demand, but rather the maximum, so it can provide reliable water service year round, including during peak usage times. Treatment and transmission/distribution costs are also the largest portion of total costs. Therefore, when rates are calculated for peak days and hours, the rates necessarily reflect those higher costs.

- II. **Residential Customer Distribution** - the three residential scenario slides (slides 19-21) are helpful, but I'm interested in seeing the actual data/counts on residential customers. Could you please provide the number of residential customers served and the actual distribution of those customers by amount of water volume usage.

Annual quarterly bills issued in 2017 are shown in the chart below. Customer usage changes throughout the year. Figure 3 is a bar chart demonstrating residential volume and bill distribution. The blue columns represent the highest tier for which a customer received a bill. So, as an example, 4,819 out of 87,846 total bills sent in 2017 had any consumption in tier 4. Whereas 24,353 of 87,846 customers ever had consumption that surpassed tier 1.

## Residential Volume and Bill Distribution



- III. **Advisory Committee** - slide #4 identified an Advisory Committee that was a cross-section of community sectors and neighborhoods. I certainly agree having a balance on the committee is important, but I've been told the makeup of the Committee was largely staff and consultants with few (5 or so of 30) citizen representatives and of those representing residential groups, most were multi-family. I was also told one staff member even identified himself as a citizen rep. Can you please speak to those "balance" concerns and please provide the list of Committee members and their sector / neighborhood affiliation.

One of the first steps in the study was to complete the Citizen Engagement Toolkit and to actively recruit membership to the Public Advisory Committee. An invitation e-mail was sent to every neighborhood association e-mail on record as well as invitations to specific large customers and community organizations based on the toolkit's sector identification. The City Staff was there to provide expertise and information as rates are based on technical engineering and financial information. After concerns that staff presence at the table was not appreciated by PAC members, City Staff sat in the back of the room to allow open conversational dialogue between Stantec and PAC members.

<b>Name</b>	<b>Representative</b>
Susan Hutton	Environmental Commission/Resident
Christopher Graham	East Aberdeen Drive Association
Jack Cederquist	Orchard Hills/Maplewood Homeowners
Marios Demetriou	Ann Arbor Public Schools
Jim Adams	U of M
Joan Doughty	Community Action Network
Janice Beecher	Michigan State University – Utility Scholar
Lou Glorie	Brooks Street Neighborhood Association
Dr. Carol Miller	Thurston Neighborhood
Patricia Byrd	Arrowwood Hills Co-op
Garrett Scott	Iroquois/East Stadium Neighborhood Association
Darren McKinnon	First Martin
Bill Rosemurgy	Broadway Area Neighborhood Association
Jennifer Hall	Ann Arbor Housing Commission

### Questions

**Q1.** Although not in the work session presentation March 12<sup>th</sup>, there was a slide in the December 20, 2017 Advisory Committee meeting titled "Key Issue: Level of Fixed Charges". The slide emphasized the importance of a relatively higher fixed cost component (vs. variable component) in the water and sewer charges. The slide indicated that rating agencies "focus on fixed charges" and that "a strong system will recover >=30% of revenue in fixed charges." I have a couple of questions on this fixed vs. variable recovery aspect:

**Q1A.** That particular slide showed that Ann Arbor was very low in terms of the fixed component of cost recovery (15% vs average of 35%) and slides later in that presentation suggested the fixed component would be getting larger as a percent of the total charges, but would still be below the average and what is recommended. What are the water and sewer fixed and variable component revenue percentages under the proposal reviewed at the work session?

Water Fixed Revenue Recovery: 13%  
 Water Variable Revenue Recovery: 87%  
 Sewer Fixed Revenue Recovery: 14%  
 Sewer Variable Revenue Recovery: 86%

**Q1B.** If 35% fixed is the average and at least 30% is recommended by rating agencies and if there is to be a major re-structuring of rates, why wouldn't we utilize the re-structuring to move to at least those levels?

Fixed revenue recovery is only one component of the cost of service study and must be viewed in tandem with other utility dynamics. Fixed cost recovery by its nature is meant to stabilize the revenue stream that a utility gets from its customers base, when revenue volatility is a concern. In Ann Arbor's case revenue volatility has not been a concern of the utility. Additionally, given the legal environment in Michigan fixed charges are constructed to recover specific cost components. For the water utility the fixed charge fundamentally recover administrative and customer service costs, meter replacement costs and public fire protection costs. The sewer fixed charge recovers meter replacement cost as well as administrative and customer service costs.

**Q1C.** The fixed component for sewer was particularly low in Ann Arbor. Is there any particular reason for that? Also, is there a fixed and variable component to stormwater charges, and if so, how does it work?

Sewer fixed charge recovers the cost of meter programs as well as administrative and customer service costs. The fixed charges are directly attributable to cost incurred by the sewer system in administration and customer charges.

Stormwater fees are calculated based on an administrative component which is the same for each parcel and a fee based on the amount of impervious area a parcel specific has.

**Q1D.** Are there particular costs the fixed components of the water and sewer rates are intended to cover, and if so, what are they and does the revenue generated from the proposed fixed components cover them?

Yes, the proposed fixed charges are constructed to recover specific cost components. For the water utility the fixed charge fundamentally recovers administrative and customer service costs, meter replacement cost and public fire protection costs. The sewer fixed charge recovers meter replacement cost as well as administrative and customer service costs.

**Q1E.** What are the specific fixed charge amounts (water, sewer and storm water) for each customer class (existing and proposed)?

#### Current Quarterly Water and Sewer Fixed Charges

##### Water Commercial Customer Charge per Quarter:

5/8" meter	\$12.90
3/4" meter	19.00
1" meter	30.30
1 1/2" meter	62.00
2" meter	97.00
3" meter	195.00
4" meter	308.00
6" meter	613.00
8" meter	1225.00
10" meter	1960.00

Water Residential Customer Charge per Quarter:

5/8" meter	\$11.25
3/4" meter	16.55
1" meter	30.30
1 1/2" meter	62.00
2" meter	97.00
3" meter	195.00
4" meter	308.00
6" meter	613.00
8" meter	1225.00

Sewer Customer Charge Per Quarter:

5/8 "	\$11.25
3/4" meter	16.55
1" meter	30.30
1½" meter	62.00
2" meter	97.00
3" meter	195.00
4" meter	308.00
6" meter	613.00
8" meter	1,225.00
10" meter	1,225.00

Current Quarterly Stormwater Fixed Charges

Customer Charge. Each property shall be billed a customer charge of \$3.91 per quarter

### Quarterly Proposed Sewer Fixed Charges

5/8" meter	\$13.09
3/4" meter	13.47
1" meter	13.98
1 1/2" meter	16.01
2" meter	17.84
3" meter	45.86
4" meter	51.98
6" meter	55.22
8" meter	66.07
10" meter	70.74

### Quarterly Proposed Water Fixed Charges

5/8 " meter	\$20.89
3/4" meter	22.43
1" meter	25.26
1 1/2" meter	33.09
2" meter	41.90
3" meter	88.47
4" meter	115.48
6" meter	176.75
8" meter	257.21
10" meter	343.11

### Proposed Quarterly Stormwater Fixed Charges

Customer Charge. Each property shall be billed a customer charge of \$3.99 per quarter.

**Q2.** Slide #20 of the presentation indicates that revenue requirements grow by 6% annually for water and 7% annually for sewer over the next several years. Assuming those revenue requirements are met through rate increases (not volume), coupled with the potential, proposed cost of service-related rate increases for residential customers (ranging from 10% to 22% in the three scenarios on slides 19-21), by my calculation, residential customers water/sewer bills will be at least 50% higher in five years' time than they are today (roughly 4 to 5 times expected inflation). Is that accurate or am I missing something? Is it also accurate that under these assumptions, the scenario 2 residential customer's total water utility bill in five years' time will be about \$300 more a year than it is today and for the scenario 3 customer, about \$600 more?

The presentation highlights the current trajectory of rates, which are subject to revisions based on the on updated financial information and the underlying performance of the utility enterprise funds. Staff intends to review this information on an annual basis by utilizing the FAMS XL revenue sufficiency models delivered in the cost of services study. If rates do get adjusted in alignment with current projections, it is expected that bills will be higher in the future and at similar magnitudes as alluded to in the question. The Water and Sewerage Maintenance Series, a sub set of the consumer price index that measures changes in water and sewer bills at a constant usage, has increased at approximately 5%-6% per year over the last 30 years. Utility inflation is being driven by declining demands, operational cost inflation, increasing construction cost, aging infrastructure and changing regulatory requirements. The drivers that have been present in the past are expected to be ongoing in the near term, continuing to push water and sewer rate adjustments at a rate greater than general inflation.

**Q3.** I can understand the need for higher-than-inflation rate/revenue increases for a few years to provide the revenue stream to fund re-investment, but once that higher revenue is built in the base, one would expect future increases beyond that point would be more in line with inflation. When do we anticipate that water utility rate increases will begin to approximate inflation?

Headline inflation as measured by the Bureau of Labor and Statistics has averaged approximately 1.7% over the last 10 years. In contrast the Water and Sewerage Maintenance Series, a sub set of the consumer price index that measures changes in water and sewer bills at a constant usage, has increased at approximately 5%-6% per year over the last 10 years. Utility inflation is being driven by declining demands, operational cost inflation, increasing construction cost, aging infrastructure and changing regulatory requirements. The drivers that have been present in the past are expected to be ongoing for the next 10 years, continuing to push water and sewer rate adjustments at a rate greater than general inflation.

**Q4.** Slide #9 of the presentation shows the system peak vs system minimum usage by month and that seasonal difference was indicated as a primary driver of the cost of service and rationale for adding a fourth tier to residential. The actual numbers are not on the slide, but graphically it appears the commercial customer seasonal increment (peak vs. minimum) is about 25,000 gallons while the residential seasonal increment (peak vs. minimum) is less than 10,000 gallons. Given that commercial (and water only) are actually the largest contributors to the seasonal system peak incremental requirements, why would residential customers have volume-based tiers, but not commercial? If it is equitable and appropriate to charge residential users higher rates per CCF for incremental/seasonal usage, why would it not be equitable to price commercial the same way?

Under the proposed rate structure each rate class residential, commercial, multi-family and water only are paying for their proportional usage of the system and specifically the large investments that are made in the system to meet peak demands. Peak demands are not looked in comparison to minimum demands, but rather in comparison to average demand. Those differences, comparing tiers 1 and 2 to tiers 3 and 4, are more visible on slide #13 of the presentation. Based on cost of service analyses, inclining block rate structures are often appropriate for and applied to single-family residential accounts. However, cost of service data generally do not support inclining block rates that rate structure is almost never appropriate for or applied to commercial or other non-residential accounts. Commercial accounts often have water only meters for their outdoor landscaping; the higher rates for water only use reflects seasonal use.

**Q5.** Also on volume-based tiers, can you please explain/provide the data that demonstrates the cost to serve a residential customer for the 37<sup>th</sup> CCF is almost 8 times the cost to serve a residential customer's first 9 CCF?

The rates calculated for each tier reflect the allocation of system cost associated with providing the capacity that is required to serve the demand/billed volumes in each respective tier. This cost of service study uses empirical data, industry accepted methodologies and best practices to properly develop the cost to serve each tier for residential customers. A rate structure is necessarily aggregated to allow the construction of implementable tiers, and can not necessarily be decomposed to specific levels of consumption comparisons.

**Q6.** On slide 26, it states that the study “identified neighborhoods and individual customers with affordability challenges” and “understood their key customer characteristics” and “incorporated that understanding into the cost of service and rate design”. Can you please explain what “incorporating that understanding into the cost of service and rate design” actually means? How would the proposed rate design be different than what is proposed if affordability had not been a consideration at all?

The cost of service study did use all data available to identify at-risk customers and was able to create a consumption profile based on that data. This information was used in the study in order to measure the impact of proposed rate adjustments on this specific type of user. Doing so indicates that the majority of single-family customers within this classification would find their consumption is contained in the first and second volumetric tier for the proposed structure. The first and second tier based on the cost of service study only includes small allocations of peaking cost. Using the data, the cost of service study also identified the new multi-family customer class, which has unique usage characteristics. Although multi-family accounts do not serve only at risk residents, a large proportion of at risk residents live in multi-family properties. The cost of service study used empirical data, industry accepted methodologies and best practices to identify and calculate the ongoing costs to serve each rate classification, and to develop the rates based on those costs. Neither affordability nor the income level of residents was a factor in the development of the rates.

**Q7.** Also on affordability, it appears the objective was to identify an approach that focused on a rate structure that contained costs for low-income customers and that creating a multi-family classification was the chosen mechanism (multi-family as a proxy for low-income). I was even told the committee “walked” the areas/districts where there were water shut-offs. Can you please speak to that including whether there was any consideration given to lower-income single-family residential customers? If not, what mechanism would be available to contain the costs for those lower-income single-family residential customers?

The affordability objective in this study was to identify at-risk customers and estimate the impact of any proposed changes on them. A multi-family customer class was established to reflect the usage trends of multi-family customers, which display a distinctly different profile than other customers in the commercial rate class, which is the class under which most multi-family customers are currently charged. For at risk single-family residential customers, resources outside of the enterprise fund could be utilized for the express purpose of affordability and would not conflict with cost of service principles or the current legal environment in Michigan for water rates. Staff is not aware of Areas/Districts of water shut-offs that were “walked” by committee members.

**Q8.** Regarding slide 14, the December 20, 2017 presentation version of this slide had all the same numbers, but also included the statement, “Proposed rates include revenue increase of \$1.9M to conform with cost to serve.” Is it accurate that residential customers under the re-structuring will immediately be paying \$1.9M more a year? If so, was any consideration given to phasing in the new rate structure over an extended period? I’m assuming there would not be any reason the new structure could not be phased-in over time, but can you please confirm.

The cost of service study found that the single-family residential rate class would need to recover \$1.9M more in revenue to conform to the cost to serve this rate class. Phasing is problematic due to ongoing subsidies between rate classes and revenue shortfalls.

**Q9.** One question I’ve been asked several times relates to system capacity and existing vs new customers. Specifically, given that we have adequate capacity to serve existing customers and that any pressures on capacity are from new developments (largely student apartments), how can it be fair/what is the justification to significantly raise single-family residential rates and reduce multi-family rates and are the new developments paying their fair share for the incremental demand they are generating? Can you please provide answers to those questions.

The cost of service study uses empirical data, industry accepted methodologies and best practices to properly develop the cost to serve each rate classification for ongoing cost, and not expansion related cost. New connections/developments are appropriately charged capital recovery charges in accordance with City Code, Chapter 27 & Chapter 28. The cost to serve new developments are not being borne by increased cost to single-family customers.

**Q10.** Also on new development, I was told that in response to a question regarding how much it cost to build the infrastructure to service new development, the response was there was “no impact”. Can you please elaborate on that as it doesn’t make sense. (If new development, and its incremental volume, has “no impact”, how does it then make sense to re-structure pricing by customer class based on incremental usage?)

The City has a capital recovery charge through which new growth pays for its incremental new demands placed on the system. The cost to serve residential customers is driving the increase in their revenue recovery, not growth. Through this mechanism growth pays for growth. The cost of service study uses empirical data, industry accepted methodologies and best practices to properly develop the cost to serve each rate classification for ongoing cost, and not expansion related cost.

**Q11.** Regarding multi-family customers, do we have a sense of what percentage of multi-family dwellings/apartment complexes have individually metered units and charge by usage?

The multi-family rate classification applies only when a water meter serves more than two residential units; the rate applies to the water flow measured by the meter.

**Q12.** What will be the impact of the proposed rate re-structuring on UM – will they be paying more or less and roughly how much more or less?

The University of Michigan has a multiple different service connections to Ann Arbor’s municipal water system and is treated the same as every other customer.



**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-046-8500-1000-1100 - Permanent Time Worked	\$ 62,601	Indirect	4.64%	25.63%	69.73%	100.00%	2,907	16,045	43,649
0043-046-8500-1000-1200 - Temporary Pay	\$ 29,190	Indirect	4.64%	25.63%	69.73%	100.00%	1,355	7,481	20,353
0043-046-8500-1000-1741 - Longevity Pay	\$ 90	Indirect	4.64%	25.63%	69.73%	100.00%	4	23	63
0043-046-8500-1000-1800 - Equipment Allowance	\$ 234	Indirect	4.64%	25.63%	69.73%	100.00%	11	60	163
0043-046-8500-1000-2100 - Professional Services	\$ 31,000	Indirect	4.64%	25.63%	69.73%	100.00%	1,440	7,945	21,615
0043-046-8500-1000-2240 - Telecommunications	\$ 800	Indirect	4.64%	25.63%	69.73%	100.00%	37	205	558
0043-046-8500-1000-2410 - Rent City Vehicles	\$ 150	Indirect	4.64%	25.63%	69.73%	100.00%	7	38	105
0043-046-8500-1000-2420 - Rent Outside Vehicles/Mileage	\$ 50	Indirect	4.64%	25.63%	69.73%	100.00%	2	13	35
0043-046-8500-1000-2430 - Contracted Services	\$ 9,000	Indirect	4.64%	25.63%	69.73%	100.00%	418	2,307	6,275
0043-046-8500-1000-2500 - Printing	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-1000-2660 - Software Maintenance	\$ 400	Indirect	4.64%	25.63%	69.73%	100.00%	19	103	279
0043-046-8500-1000-2700 - Conference Training & Travel	\$ 2,960	Indirect	4.64%	25.63%	69.73%	100.00%	137	759	2,064
0043-046-8500-1000-2951 - Employee Recognition	\$ 200	Indirect	4.64%	25.63%	69.73%	100.00%	9	51	139
0043-046-8500-1000-3100 - Postage	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-1000-3400 - Materials & Supplies	\$ 1,000	Indirect	4.64%	25.63%	69.73%	100.00%	46	256	697
0043-046-8500-1000-3440 - Property Plant & Equipment <	\$ 200	Indirect	4.64%	25.63%	69.73%	100.00%	9	51	139
0043-046-8500-1000-4220 - Life Insurance	\$ 150	Indirect	4.64%	25.63%	69.73%	100.00%	7	38	105
0043-046-8500-1000-4230 - Medical Insurance	\$ 5,823	Indirect	4.64%	25.63%	69.73%	100.00%	270	1,492	4,060
0043-046-8500-1000-4234 - Disability Insurance	\$ 298	Indirect	4.64%	25.63%	69.73%	100.00%	14	76	208
0043-046-8500-1000-4237 - Retiree Health Savings Account	\$ 249	Indirect	4.64%	25.63%	69.73%	100.00%	12	64	174
0043-046-8500-1000-4238 - Veba Funding	\$ 6,353	Indirect	4.64%	25.63%	69.73%	100.00%	295	1,628	4,430
0043-046-8500-1000-4239 - Retiree Medical Insurance	\$ 5,064	Indirect	4.64%	25.63%	69.73%	100.00%	235	1,298	3,531
0043-046-8500-1000-4240 - Workers Comp	\$ 605	Indirect	4.64%	25.63%	69.73%	100.00%	28	155	422
0043-046-8500-1000-4250 - Social Security-Employer	\$ 4,808	Indirect	4.64%	25.63%	69.73%	100.00%	223	1,232	3,352
0043-046-8500-1000-4259 - Retirement Contribution	\$ 14,481	Indirect	4.64%	25.63%	69.73%	100.00%	672	3,712	10,097
0043-046-8500-1000-4270 - Dental Insurance	\$ 789	Indirect	4.64%	25.63%	69.73%	100.00%	37	202	550
0043-046-8500-1000-4280 - Optical Insurance	\$ 93	Indirect	4.64%	25.63%	69.73%	100.00%	4	24	65
0043-046-8500-1000-4300 - Dues & Licenses	\$ 112	Indirect	4.64%	25.63%	69.73%	100.00%	5	29	78
0043-046-8500-1000-4423 - Transfer To IT Fund	\$ 104,328	Indirect	4.64%	25.63%	69.73%	100.00%	4,845	26,740	72,744
0043-046-8500-1000-4440 - Unemployment Compensation	\$ 159	Indirect	4.64%	25.63%	69.73%	100.00%	7	41	111
0043-046-8500-3360-1100 - Permanent Time Worked	\$ 14,669	Indirect	4.64%	25.63%	69.73%	100.00%	681	3,760	10,228
0043-046-8500-3360-1800 - Equipment Allowance	\$ 156	Indirect	4.64%	25.63%	69.73%	100.00%	7	40	109
0043-046-8500-3360-4220 - Life Insurance	\$ 40	Indirect	4.64%	25.63%	69.73%	100.00%	2	10	28
0043-046-8500-3360-4230 - Medical Insurance	\$ 2,228	Indirect	4.64%	25.63%	69.73%	100.00%	103	571	1,553
0043-046-8500-3360-4234 - Disability Insurance	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-3360-4238 - Veba Funding	\$ 3,176	Indirect	4.64%	25.63%	69.73%	100.00%	147	814	2,214
0043-046-8500-3360-4240 - Workers Comp	\$ 132	Indirect	4.64%	25.63%	69.73%	100.00%	6	34	92
0043-046-8500-3360-4250 - Social Security-Employer	\$ 1,132	Indirect	4.64%	25.63%	69.73%	100.00%	53	290	789
0043-046-8500-3360-4259 - Retirement Contribution	\$ 3,389	Indirect	4.64%	25.63%	69.73%	100.00%	157	869	2,363
0043-046-8500-3360-4270 - Dental Insurance	\$ 169	Indirect	4.64%	25.63%	69.73%	100.00%	8	43	118
0043-046-8500-3360-4280 - Optical Insurance	\$ 20	Indirect	4.64%	25.63%	69.73%	100.00%	1	5	14
0043-046-8500-3360-4440 - Unemployment Compensation	\$ 45	Indirect	4.64%	25.63%	69.73%	100.00%	2	12	31
0043-046-8500-7019-1100 - Permanent Time Worked	\$ 16,661	Customer	100.00%	0.00%	0.00%	100.00%	16,661	-	-
0043-046-8500-7019-1601 - Severance Pay	\$ 17,000	Customer	100.00%	0.00%	0.00%	100.00%	17,000	-	-
0043-046-8500-7019-1800 - Equipment Allowance	\$ 156	Customer	100.00%	0.00%	0.00%	100.00%	156	-	-
0043-046-8500-7019-4220 - Life Insurance	\$ 40	Customer	100.00%	0.00%	0.00%	100.00%	40	-	-
0043-046-8500-7019-4230 - Medical Insurance	\$ 2,227	Customer	100.00%	0.00%	0.00%	100.00%	2,227	-	-
0043-046-8500-7019-4234 - Disability Insurance	\$ 100	Customer	100.00%	0.00%	0.00%	100.00%	100	-	-
0043-046-8500-7019-4238 - Veba Funding	\$ 3,176	Customer	100.00%	0.00%	0.00%	100.00%	3,176	-	-
0043-046-8500-7019-4240 - Workers Comp	\$ 229	Customer	100.00%	0.00%	0.00%	100.00%	229	-	-
0043-046-8500-7019-4250 - Social Security-Employer	\$ 1,287	Customer	100.00%	0.00%	0.00%	100.00%	1,287	-	-

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-046-8500-7019-4259 - Retirement Contribution	\$ 3,849	Customer	100.00%	0.00%	0.00%	100.00%	3,849	-	-
0043-046-8500-7019-4270 - Dental Insurance	\$ 169	Customer	100.00%	0.00%	0.00%	100.00%	169	-	-
0043-046-8500-7019-4280 - Optical Insurance	\$ 20	Customer	100.00%	0.00%	0.00%	100.00%	20	-	-
0043-046-8500-7019-4440 - Unemployment Compensation	\$ 45	Customer	100.00%	0.00%	0.00%	100.00%	45	-	-
0043-046-8500-7021-1100 - Permanent Time Worked	\$ 22,808	Indirect	4.64%	25.63%	69.73%	100.00%	1,059	5,846	15,903
0043-046-8500-7021-1800 - Equipment Allowance	\$ 195	Indirect	4.64%	25.63%	69.73%	100.00%	9	50	136
0043-046-8500-7021-4220 - Life Insurance	\$ 50	Indirect	4.64%	25.63%	69.73%	100.00%	2	13	35
0043-046-8500-7021-4230 - Medical Insurance	\$ 2,962	Indirect	4.64%	25.63%	69.73%	100.00%	138	759	2,065
0043-046-8500-7021-4234 - Disability Insurance	\$ 125	Indirect	4.64%	25.63%	69.73%	100.00%	6	32	87
0043-046-8500-7021-4238 - Veba Funding	\$ 3,971	Indirect	4.64%	25.63%	69.73%	100.00%	184	1,018	2,769
0043-046-8500-7021-4240 - Workers Comp	\$ 302	Indirect	4.64%	25.63%	69.73%	100.00%	14	77	211
0043-046-8500-7021-4250 - Social Security-Employer	\$ 1,761	Indirect	4.64%	25.63%	69.73%	100.00%	82	451	1,228
0043-046-8500-7021-4259 - Retirement Contribution	\$ 5,269	Indirect	4.64%	25.63%	69.73%	100.00%	245	1,350	3,674
0043-046-8500-7021-4270 - Dental Insurance	\$ 225	Indirect	4.64%	25.63%	69.73%	100.00%	10	58	157
0043-046-8500-7021-4280 - Optical Insurance	\$ 26	Indirect	4.64%	25.63%	69.73%	100.00%	1	7	18
0043-046-8500-7021-4440 - Unemployment Compensation	\$ 56	Indirect	4.64%	25.63%	69.73%	100.00%	3	14	39
0043-046-8500-7022-1100 - Permanent Time Worked	\$ 13,300	Indirect	4.64%	25.63%	69.73%	100.00%	618	3,409	9,274
0043-046-8500-7022-1721 - Annual Sick Leave Payout	\$ 2,936	Indirect	4.64%	25.63%	69.73%	100.00%	136	753	2,047
0043-046-8500-7022-1800 - Equipment Allowance	\$ 121	Indirect	4.64%	25.63%	69.73%	100.00%	6	31	84
0043-046-8500-7022-4220 - Life Insurance	\$ 32	Indirect	4.64%	25.63%	69.73%	100.00%	1	8	22
0043-046-8500-7022-4230 - Medical Insurance	\$ 222	Indirect	4.64%	25.63%	69.73%	100.00%	10	57	155
0043-046-8500-7022-4234 - Disability Insurance	\$ 81	Indirect	4.64%	25.63%	69.73%	100.00%	4	21	56
0043-046-8500-7022-4237 - Retiree Health Savings Account	\$ 8	Indirect	4.64%	25.63%	69.73%	100.00%	0	2	6
0043-046-8500-7022-4238 - Veba Funding	\$ 2,383	Indirect	4.64%	25.63%	69.73%	100.00%	111	611	1,662
0043-046-8500-7022-4240 - Workers Comp	\$ 110	Indirect	4.64%	25.63%	69.73%	100.00%	5	28	77
0043-046-8500-7022-4250 - Social Security-Employer	\$ 1,250	Indirect	4.64%	25.63%	69.73%	100.00%	58	320	872
0043-046-8500-7022-4259 - Retirement Contribution	\$ 3,750	Indirect	4.64%	25.63%	69.73%	100.00%	174	961	2,615
0043-046-8500-7022-4270 - Dental Insurance	\$ 180	Indirect	4.64%	25.63%	69.73%	100.00%	8	46	126
0043-046-8500-7022-4280 - Optical Insurance	\$ 21	Indirect	4.64%	25.63%	69.73%	100.00%	1	5	15
0043-046-8500-7022-4440 - Unemployment Compensation	\$ 36	Indirect	4.64%	25.63%	69.73%	100.00%	2	9	25
0043-046-8500-7023-1100 - Permanent Time Worked	\$ 4,215	Indirect	4.64%	25.63%	69.73%	100.00%	196	1,080	2,939
0043-046-8500-7023-1800 - Equipment Allowance	\$ 39	Indirect	4.64%	25.63%	69.73%	100.00%	2	10	27
0043-046-8500-7023-4220 - Life Insurance	\$ 10	Indirect	4.64%	25.63%	69.73%	100.00%	0	3	7
0043-046-8500-7023-4230 - Medical Insurance	\$ 25	Indirect	4.64%	25.63%	69.73%	100.00%	1	6	17
0043-046-8500-7023-4234 - Disability Insurance	\$ 25	Indirect	4.64%	25.63%	69.73%	100.00%	1	6	17
0043-046-8500-7023-4238 - Veba Funding	\$ 794	Indirect	4.64%	25.63%	69.73%	100.00%	37	204	554
0043-046-8500-7023-4240 - Workers Comp	\$ 79	Indirect	4.64%	25.63%	69.73%	100.00%	4	20	55
0043-046-8500-7023-4250 - Social Security-Employer	\$ 326	Indirect	4.64%	25.63%	69.73%	100.00%	15	84	227
0043-046-8500-7023-4259 - Retirement Contribution	\$ 974	Indirect	4.64%	25.63%	69.73%	100.00%	45	250	679
0043-046-8500-7023-4440 - Unemployment Compensation	\$ 11	Indirect	4.64%	25.63%	69.73%	100.00%	1	3	8
0043-046-8500-7024-1100 - Permanent Time Worked	\$ 113,293	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	30,451	82,842
0043-046-8500-7024-1800 - Equipment Allowance	\$ 1,264	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	340	924
0043-046-8500-7024-4220 - Life Insurance	\$ 329	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	88	241
0043-046-8500-7024-4230 - Medical Insurance	\$ 16,695	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	4,487	12,208
0043-046-8500-7024-4234 - Disability Insurance	\$ 807	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	217	590
0043-046-8500-7024-4237 - Retiree Health Savings Account	\$ 806	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	217	589
0043-046-8500-7024-4238 - Veba Funding	\$ 10,324	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,775	7,549
0043-046-8500-7024-4240 - Workers Comp	\$ 1,236	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	332	904
0043-046-8500-7024-4250 - Social Security-Employer	\$ 8,764	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,356	6,408
0043-046-8500-7024-4259 - Retirement Contribution	\$ 26,171	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	7,034	19,137
0043-046-8500-7024-4270 - Dental Insurance	\$ 1,262	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	339	923

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-046-8500-7024-4280 - Optical Insurance	\$ 181	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	49	132
0043-046-8500-7024-4440 - Unemployment Compensation	\$ 367	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	99	268
0043-061-6100-1000-1100 - Permanent Time Worked	\$ 86,205	Collection	0.00%	100.00%	0.00%	100.00%	-	86,205	-
0043-061-6100-1000-1401 - Overtime Paid-Permanent	\$ 700	Collection	0.00%	100.00%	0.00%	100.00%	-	700	-
0043-061-6100-1000-1721 - Annual Sick Leave Payout	\$ 289	Collection	0.00%	100.00%	0.00%	100.00%	-	289	-
0043-061-6100-1000-1741 - Longevity Pay	\$ 360	Collection	0.00%	100.00%	0.00%	100.00%	-	360	-
0043-061-6100-1000-1800 - Equipment Allowance	\$ 1,050	Collection	0.00%	100.00%	0.00%	100.00%	-	1,050	-
0043-061-6100-1000-2100 - Professional Services	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-1000-2240 - Telecommunications	\$ 4,200	Collection	0.00%	100.00%	0.00%	100.00%	-	4,200	-
0043-061-6100-1000-2420 - Rent Outside Vehicles/Mileage	\$ 200	Collection	0.00%	100.00%	0.00%	100.00%	-	200	-
0043-061-6100-1000-2430 - Contracted Services	\$ 200	Collection	0.00%	100.00%	0.00%	100.00%	-	200	-
0043-061-6100-1000-2700 - Conference Training & Travel	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-1000-2702 - Educational Reimbursement	\$ 1,200	Collection	0.00%	100.00%	0.00%	100.00%	-	1,200	-
0043-061-6100-1000-2951 - Employee Recognition	\$ 500	Collection	0.00%	100.00%	0.00%	100.00%	-	500	-
0043-061-6100-1000-3300 - Uniforms & Accessories	\$ 3,300	Collection	0.00%	100.00%	0.00%	100.00%	-	3,300	-
0043-061-6100-1000-3400 - Materials & Supplies	\$ 260	Collection	0.00%	100.00%	0.00%	100.00%	-	260	-
0043-061-6100-1000-4220 - Life Insurance	\$ 185	Collection	0.00%	100.00%	0.00%	100.00%	-	185	-
0043-061-6100-1000-4230 - Medical Insurance	\$ 16,368	Collection	0.00%	100.00%	0.00%	100.00%	-	16,368	-
0043-061-6100-1000-4234 - Disability Insurance	\$ 280	Collection	0.00%	100.00%	0.00%	100.00%	-	280	-
0043-061-6100-1000-4237 - Retiree Health Savings Account	\$ 232	Collection	0.00%	100.00%	0.00%	100.00%	-	232	-
0043-061-6100-1000-4238 - Veba Funding	\$ 13,501	Collection	0.00%	100.00%	0.00%	100.00%	-	13,501	-
0043-061-6100-1000-4240 - Workers Comp	\$ 395	Collection	0.00%	100.00%	0.00%	100.00%	-	395	-
0043-061-6100-1000-4250 - Social Security-Employer	\$ 6,637	Collection	0.00%	100.00%	0.00%	100.00%	-	6,637	-
0043-061-6100-1000-4259 - Retirement Contribution	\$ 20,063	Collection	0.00%	100.00%	0.00%	100.00%	-	20,063	-
0043-061-6100-1000-4260 - Insurance Premiums	\$ 6,069	Collection	0.00%	100.00%	0.00%	100.00%	-	6,069	-
0043-061-6100-1000-4270 - Dental Insurance	\$ 1,273	Collection	0.00%	100.00%	0.00%	100.00%	-	1,273	-
0043-061-6100-1000-4280 - Optical Insurance	\$ 147	Collection	0.00%	100.00%	0.00%	100.00%	-	147	-
0043-061-6100-1000-4300 - Dues & Licenses	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-1000-4423 - Transfer To IT Fund	\$ 121,253	Collection	0.00%	100.00%	0.00%	100.00%	-	121,253	-
0043-061-6100-1000-4440 - Unemployment Compensation	\$ 256	Collection	0.00%	100.00%	0.00%	100.00%	-	256	-
0043-061-6100-1100-4239 - Retiree Medical Insurance	\$ 141,792	Collection	0.00%	100.00%	0.00%	100.00%	-	141,792	-
0043-061-6100-4500-1100 - Permanent Time Worked	\$ 33,866	Collection	0.00%	100.00%	0.00%	100.00%	-	33,866	-
0043-061-6100-4500-1200 - Temporary Pay	\$ 8,767	Collection	0.00%	100.00%	0.00%	100.00%	-	8,767	-
0043-061-6100-4500-1800 - Equipment Allowance	\$ 312	Collection	0.00%	100.00%	0.00%	100.00%	-	312	-
0043-061-6100-4500-2240 - Telecommunications	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-4500-4220 - Life Insurance	\$ 80	Collection	0.00%	100.00%	0.00%	100.00%	-	80	-
0043-061-6100-4500-4230 - Medical Insurance	\$ 5,873	Collection	0.00%	100.00%	0.00%	100.00%	-	5,873	-
0043-061-6100-4500-4234 - Disability Insurance	\$ 199	Collection	0.00%	100.00%	0.00%	100.00%	-	199	-
0043-061-6100-4500-4237 - Retiree Health Savings Account	\$ 332	Collection	0.00%	100.00%	0.00%	100.00%	-	332	-
0043-061-6100-4500-4240 - Workers Comp	\$ 229	Collection	0.00%	100.00%	0.00%	100.00%	-	229	-
0043-061-6100-4500-4250 - Social Security-Employer	\$ 2,614	Collection	0.00%	100.00%	0.00%	100.00%	-	2,614	-
0043-061-6100-4500-4259 - Retirement Contribution	\$ 7,823	Collection	0.00%	100.00%	0.00%	100.00%	-	7,823	-
0043-061-6100-4500-4270 - Dental Insurance	\$ 451	Collection	0.00%	100.00%	0.00%	100.00%	-	451	-
0043-061-6100-4500-4280 - Optical Insurance	\$ 53	Collection	0.00%	100.00%	0.00%	100.00%	-	53	-
0043-061-6100-4500-4300 - Dues & Licenses	\$ 50	Collection	0.00%	100.00%	0.00%	100.00%	-	50	-
0043-061-6100-4500-4440 - Unemployment Compensation	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-061-6100-6210-1100 - Permanent Time Worked	\$ 114,974	Collection	0.00%	100.00%	0.00%	100.00%	-	114,974	-
0043-061-6100-6210-1200 - Temporary Pay	\$ 5,312	Collection	0.00%	100.00%	0.00%	100.00%	-	5,312	-
0043-061-6100-6210-1401 - Overtime Paid-Permanent	\$ 10,000	Collection	0.00%	100.00%	0.00%	100.00%	-	10,000	-
0043-061-6100-6210-1741 - Longevity Pay	\$ 1,020	Collection	0.00%	100.00%	0.00%	100.00%	-	1,020	-
0043-061-6100-6210-1800 - Equipment Allowance	\$ 990	Collection	0.00%	100.00%	0.00%	100.00%	-	990	-

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-061-6100-6210-2330 - Radio Maintenance	\$ 1,205	Collection	0.00%	100.00%	0.00%	100.00%	-	1,205	-
0043-061-6100-6210-2331 - Radio System Service Charge	\$ 10,475	Collection	0.00%	100.00%	0.00%	100.00%	-	10,475	-
0043-061-6100-6210-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-6210-2421 - Fleet Maintenance & Repair	\$ 80,468	Collection	0.00%	100.00%	0.00%	100.00%	-	80,468	-
0043-061-6100-6210-2422 - Fleet Fuel	\$ 17,516	Collection	0.00%	100.00%	0.00%	100.00%	-	17,516	-
0043-061-6100-6210-2423 - Fleet Depreciation	\$ 88,778	Collection	0.00%	100.00%	0.00%	100.00%	-	88,778	-
0043-061-6100-6210-2424 - Fleet Management	\$ 4,498	Collection	0.00%	100.00%	0.00%	100.00%	-	4,498	-
0043-061-6100-6210-2430 - Contracted Services	\$ 45,500	Collection	0.00%	100.00%	0.00%	100.00%	-	45,500	-
0043-061-6100-6210-2700 - Conference Training & Travel	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-6210-3300 - Uniforms & Accessories	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-061-6100-6210-3400 - Materials & Supplies	\$ 250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	250
0043-061-6100-6210-4220 - Life Insurance	\$ 140	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	140
0043-061-6100-6210-4230 - Medical Insurance	\$ 26,023	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,023
0043-061-6100-6210-4234 - Disability Insurance	\$ 70	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	70
0043-061-6100-6210-4237 - Retiree Health Savings Account	\$ 249	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	249
0043-061-6100-6210-4238 - Veba Funding	\$ 23,667	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	23,667
0043-061-6100-6210-4240 - Workers Comp	\$ 4,129	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,129
0043-061-6100-6210-4250 - Social Security-Employer	\$ 8,885	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	8,885
0043-061-6100-6210-4259 - Retirement Contribution	\$ 26,795	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,795
0043-061-6100-6210-4270 - Dental Insurance	\$ 2,016	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,016
0043-061-6100-6210-4280 - Optical Insurance	\$ 236	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	236
0043-061-6100-6210-4300 - Dues & Licenses	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-061-6100-6210-4424 - Transfer To Maintenance Facilit	\$ 40,487	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	40,487
0043-061-6100-6210-4440 - Unemployment Compensation	\$ 405	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	405
0043-061-6100-7031-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7031-2421 - Fleet Maintenance & Repair	\$ 91,110	Collection	0.00%	100.00%	0.00%	100.00%	-	91,110	-
0043-061-6100-7031-2422 - Fleet Fuel	\$ 11,477	Collection	0.00%	100.00%	0.00%	100.00%	-	11,477	-
0043-061-6100-7031-2423 - Fleet Depreciation	\$ 50,382	Collection	0.00%	100.00%	0.00%	100.00%	-	50,382	-
0043-061-6100-7031-2424 - Fleet Management	\$ 2,422	Collection	0.00%	100.00%	0.00%	100.00%	-	2,422	-
0043-061-6100-7061-2310 - Building Maintenance	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7064-1100 - Permanent Time Worked	\$ 25,651	Collection	0.00%	100.00%	0.00%	100.00%	-	25,651	-
0043-061-6100-7064-1741 - Longevity Pay	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-7064-1800 - Equipment Allowance	\$ 312	Collection	0.00%	100.00%	0.00%	100.00%	-	312	-
0043-061-6100-7064-3400 - Materials & Supplies	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-7064-4220 - Life Insurance	\$ 30	Collection	0.00%	100.00%	0.00%	100.00%	-	30	-
0043-061-6100-7064-4230 - Medical Insurance	\$ 5,673	Collection	0.00%	100.00%	0.00%	100.00%	-	5,673	-
0043-061-6100-7064-4238 - Veba Funding	\$ 6,354	Collection	0.00%	100.00%	0.00%	100.00%	-	6,354	-
0043-061-6100-7064-4240 - Workers Comp	\$ 1,001	Collection	0.00%	100.00%	0.00%	100.00%	-	1,001	-
0043-061-6100-7064-4250 - Social Security-Employer	\$ 1,995	Collection	0.00%	100.00%	0.00%	100.00%	-	1,995	-
0043-061-6100-7064-4259 - Retirement Contribution	\$ 6,064	Collection	0.00%	100.00%	0.00%	100.00%	-	6,064	-
0043-061-6100-7064-4270 - Dental Insurance	\$ 451	Collection	0.00%	100.00%	0.00%	100.00%	-	451	-
0043-061-6100-7064-4280 - Optical Insurance	\$ 53	Collection	0.00%	100.00%	0.00%	100.00%	-	53	-
0043-061-6100-7064-4300 - Dues & Licenses	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-7064-4440 - Unemployment Compensation	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-061-6100-7072-1100 - Permanent Time Worked	\$ 71,267	Collection	0.00%	100.00%	0.00%	100.00%	-	71,267	-
0043-061-6100-7072-1741 - Longevity Pay	\$ 390	Collection	0.00%	100.00%	0.00%	100.00%	-	390	-
0043-061-6100-7072-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7072-3400 - Materials & Supplies	\$ 3,500	Collection	0.00%	100.00%	0.00%	100.00%	-	3,500	-
0043-061-6100-7072-4220 - Life Insurance	\$ 77	Collection	0.00%	100.00%	0.00%	100.00%	-	77	-
0043-061-6100-7072-4230 - Medical Insurance	\$ 19,857	Collection	0.00%	100.00%	0.00%	100.00%	-	19,857	-
0043-061-6100-7072-4237 - Retiree Health Savings Account	\$ 664	Collection	0.00%	100.00%	0.00%	100.00%	-	664	-
0043-061-6100-7072-4238 - Veba Funding	\$ 9,531	Collection	0.00%	100.00%	0.00%	100.00%	-	9,531	-
0043-061-6100-7072-4240 - Workers Comp	\$ 2,703	Collection	0.00%	100.00%	0.00%	100.00%	-	2,703	-

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-061-6100-7072-4250 - Social Security-Employer	\$ 5,458	Collection	0.00%	100.00%	0.00%	100.00%	-	5,458	-
0043-061-6100-7072-4259 - Retirement Contribution	\$ 16,553	Collection	0.00%	100.00%	0.00%	100.00%	-	16,553	-
0043-061-6100-7072-4270 - Dental Insurance	\$ 1,577	Collection	0.00%	100.00%	0.00%	100.00%	-	1,577	-
0043-061-6100-7072-4280 - Optical Insurance	\$ 184	Collection	0.00%	100.00%	0.00%	100.00%	-	184	-
0043-061-6100-7072-4440 - Unemployment Compensation	\$ 316	Collection	0.00%	100.00%	0.00%	100.00%	-	316	-
0043-061-6100-7074-1100 - Permanent Time Worked	\$ 90,272	Collection	0.00%	100.00%	0.00%	100.00%	-	90,272	-
0043-061-6100-7074-1401 - Overtime Paid-Permanent	\$ 1,000	Collection	0.00%	100.00%	0.00%	100.00%	-	1,000	-
0043-061-6100-7074-1741 - Longevity Pay	\$ 765	Collection	0.00%	100.00%	0.00%	100.00%	-	765	-
0043-061-6100-7074-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7074-2430 - Contracted Services	\$ 41,108	Collection	0.00%	100.00%	0.00%	100.00%	-	41,108	-
0043-061-6100-7074-2700 - Conference Training & Travel	\$ 2,925	Collection	0.00%	100.00%	0.00%	100.00%	-	2,925	-
0043-061-6100-7074-3400 - Materials & Supplies	\$ 3,000	Collection	0.00%	100.00%	0.00%	100.00%	-	3,000	-
0043-061-6100-7074-4220 - Life Insurance	\$ 104	Collection	0.00%	100.00%	0.00%	100.00%	-	104	-
0043-061-6100-7074-4230 - Medical Insurance	\$ 21,275	Collection	0.00%	100.00%	0.00%	100.00%	-	21,275	-
0043-061-6100-7074-4237 - Retiree Health Savings Account	\$ 332	Collection	0.00%	100.00%	0.00%	100.00%	-	332	-
0043-061-6100-7074-4238 - Veba Funding	\$ 17,472	Collection	0.00%	100.00%	0.00%	100.00%	-	17,472	-
0043-061-6100-7074-4240 - Workers Comp	\$ 3,432	Collection	0.00%	100.00%	0.00%	100.00%	-	3,432	-
0043-061-6100-7074-4250 - Social Security-Employer	\$ 6,919	Collection	0.00%	100.00%	0.00%	100.00%	-	6,919	-
0043-061-6100-7074-4259 - Retirement Contribution	\$ 21,030	Collection	0.00%	100.00%	0.00%	100.00%	-	21,030	-
0043-061-6100-7074-4270 - Dental Insurance	\$ 1,689	Collection	0.00%	100.00%	0.00%	100.00%	-	1,689	-
0043-061-6100-7074-4280 - Optical Insurance	\$ 197	Collection	0.00%	100.00%	0.00%	100.00%	-	197	-
0043-061-6100-7074-4440 - Unemployment Compensation	\$ 339	Collection	0.00%	100.00%	0.00%	100.00%	-	339	-
0043-061-6100-7074-6600.6650 - Repair Parts Outside Repa	\$ 21,000	Collection	0.00%	100.00%	0.00%	100.00%	-	21,000	-
0043-061-6100-7077-1100 - Permanent Time Worked	\$ 63,266	Collection	0.00%	100.00%	0.00%	100.00%	-	63,266	-
0043-061-6100-7077-1741 - Longevity Pay	\$ 270	Collection	0.00%	100.00%	0.00%	100.00%	-	270	-
0043-061-6100-7077-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7077-2424 - Fleet Management	\$ 173	Collection	0.00%	100.00%	0.00%	100.00%	-	173	-
0043-061-6100-7077-2430 - Contracted Services	\$ 75,000	Collection	0.00%	100.00%	0.00%	100.00%	-	75,000	-
0043-061-6100-7077-3400 - Materials & Supplies	\$ 12,500	Collection	0.00%	100.00%	0.00%	100.00%	-	12,500	-
0043-061-6100-7077-3440 - Property Plant & Equipment < \$	\$ 2,000	Collection	0.00%	100.00%	0.00%	100.00%	-	2,000	-
0043-061-6100-7077-4220 - Life Insurance	\$ 85	Collection	0.00%	100.00%	0.00%	100.00%	-	85	-
0043-061-6100-7077-4230 - Medical Insurance	\$ 16,311	Collection	0.00%	100.00%	0.00%	100.00%	-	16,311	-
0043-061-6100-7077-4237 - Retiree Health Savings Account	\$ 540	Collection	0.00%	100.00%	0.00%	100.00%	-	540	-
0043-061-6100-7077-4238 - Veba Funding	\$ 7,942	Collection	0.00%	100.00%	0.00%	100.00%	-	7,942	-
0043-061-6100-7077-4240 - Workers Comp	\$ 2,396	Collection	0.00%	100.00%	0.00%	100.00%	-	2,396	-
0043-061-6100-7077-4250 - Social Security-Employer	\$ 4,844	Collection	0.00%	100.00%	0.00%	100.00%	-	4,844	-
0043-061-6100-7077-4259 - Retirement Contribution	\$ 14,677	Collection	0.00%	100.00%	0.00%	100.00%	-	14,677	-
0043-061-6100-7077-4270 - Dental Insurance	\$ 1,296	Collection	0.00%	100.00%	0.00%	100.00%	-	1,296	-
0043-061-6100-7077-4280 - Optical Insurance	\$ 152	Collection	0.00%	100.00%	0.00%	100.00%	-	152	-
0043-061-6100-7077-4440 - Unemployment Compensation	\$ 260	Collection	0.00%	100.00%	0.00%	100.00%	-	260	-
0043-061-6100-7083-1100 - Permanent Time Worked	\$ 177,153	Collection	0.00%	100.00%	0.00%	100.00%	-	177,153	-
0043-061-6100-7083-1401 - Overtime Paid-Permanent	\$ 2,000	Collection	0.00%	100.00%	0.00%	100.00%	-	2,000	-
0043-061-6100-7083-1741 - Longevity Pay	\$ 1,560	Collection	0.00%	100.00%	0.00%	100.00%	-	1,560	-
0043-061-6100-7083-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7083-2435 - Tipping Fees	\$ 5,665	Collection	0.00%	100.00%	0.00%	100.00%	-	5,665	-
0043-061-6100-7083-3400 - Materials & Supplies	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7083-4220 - Life Insurance	\$ 155	Collection	0.00%	100.00%	0.00%	100.00%	-	155	-
0043-061-6100-7083-4230 - Medical Insurance	\$ 35,175	Collection	0.00%	100.00%	0.00%	100.00%	-	35,175	-
0043-061-6100-7083-4237 - Retiree Health Savings Account	\$ 1,851	Collection	0.00%	100.00%	0.00%	100.00%	-	1,851	-
0043-061-6100-7083-4238 - Veba Funding	\$ 19,855	Collection	0.00%	100.00%	0.00%	100.00%	-	19,855	-
0043-061-6100-7083-4240 - Workers Comp	\$ 6,739	Collection	0.00%	100.00%	0.00%	100.00%	-	6,739	-
0043-061-6100-7083-4250 - Social Security-Employer	\$ 13,575	Collection	0.00%	100.00%	0.00%	100.00%	-	13,575	-
0043-061-6100-7083-4259 - Retirement Contribution	\$ 41,283	Collection	0.00%	100.00%	0.00%	100.00%	-	41,283	-

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-061-6100-7083-4270 - Dental Insurance	\$ 2,793	Collection	0.00%	100.00%	0.00%	100.00%	-	2,793	-
0043-061-6100-7083-4280 - Optical Insurance	\$ 327	Collection	0.00%	100.00%	0.00%	100.00%	-	327	-
0043-061-6100-7083-4440 - Unemployment Compensation	\$ 787	Collection	0.00%	100.00%	0.00%	100.00%	-	787	-
0043-061-6100-7092-1100 - Permanent Time Worked	\$ 49,751	Collection	0.00%	100.00%	0.00%	100.00%	-	49,751	-
0043-061-6100-7092-1401 - Overtime Paid-Permanent	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-7092-1741 - Longevity Pay	\$ 351	Collection	0.00%	100.00%	0.00%	100.00%	-	351	-
0043-061-6100-7092-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7092-2430 - Contracted Services	\$ 25,000	Collection	0.00%	100.00%	0.00%	100.00%	-	25,000	-
0043-061-6100-7092-3400 - Materials & Supplies	\$ 30,413	Collection	0.00%	100.00%	0.00%	100.00%	-	30,413	-
0043-061-6100-7092-3440 - Property Plant & Equipment <	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7092-4220 - Life Insurance	\$ 62	Collection	0.00%	100.00%	0.00%	100.00%	-	62	-
0043-061-6100-7092-4230 - Medical Insurance	\$ 13,473	Collection	0.00%	100.00%	0.00%	100.00%	-	13,473	-
0043-061-6100-7092-4237 - Retiree Health Savings Account	\$ 515	Collection	0.00%	100.00%	0.00%	100.00%	-	515	-
0043-061-6100-7092-4238 - Veba Funding	\$ 5,241	Collection	0.00%	100.00%	0.00%	100.00%	-	5,241	-
0043-061-6100-7092-4240 - Workers Comp	\$ 1,889	Collection	0.00%	100.00%	0.00%	100.00%	-	1,889	-
0043-061-6100-7092-4250 - Social Security-Employer	\$ 3,811	Collection	0.00%	100.00%	0.00%	100.00%	-	3,811	-
0043-061-6100-7092-4259 - Retirement Contribution	\$ 11,573	Collection	0.00%	100.00%	0.00%	100.00%	-	11,573	-
0043-061-6100-7092-4270 - Dental Insurance	\$ 1,070	Collection	0.00%	100.00%	0.00%	100.00%	-	1,070	-
0043-061-6100-7092-4280 - Optical Insurance	\$ 126	Collection	0.00%	100.00%	0.00%	100.00%	-	126	-
0043-061-6100-7092-4440 - Unemployment Compensation	\$ 215	Collection	0.00%	100.00%	0.00%	100.00%	-	215	-
0043-061-6100-9000-4100 - Depreciation	\$ 57,977	Collection	0.00%	100.00%	0.00%	100.00%	-	57,977	-
0043-061-6100-9000-5130 - Equipment	\$ 25,000	Collection	0.00%	100.00%	0.00%	100.00%	-	25,000	-
0043-070-1000-1000-1100 - Permanent Time Worked	\$ 40,582	Collection	0.00%	100.00%	0.00%	100.00%	-	40,582	-
0043-070-1000-1000-1200 - Temporary Pay	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-070-1000-1000-1721 - Annual Sick Leave Payout	\$ 470	Collection	0.00%	100.00%	0.00%	100.00%	-	470	-
0043-070-1000-1000-1800 - Equipment Allowance	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-1000-1000-2100 - Professional Services	\$ 15,000	Collection	0.00%	100.00%	0.00%	100.00%	-	15,000	-
0043-070-1000-1000-2150 - Legal Expenses	\$ 20,000	Collection	0.00%	100.00%	0.00%	100.00%	-	20,000	-
0043-070-1000-1000-2700 - Conference Training & Travel	\$ 3,000	Collection	0.00%	100.00%	0.00%	100.00%	-	3,000	-
0043-070-1000-1000-2951 - Employee Recognition	\$ 100	Collection	0.00%	100.00%	0.00%	100.00%	-	100	-
0043-070-1000-1000-4220 - Life Insurance	\$ 105	Collection	0.00%	100.00%	0.00%	100.00%	-	105	-
0043-070-1000-1000-4230 - Medical Insurance	\$ 7,217	Collection	0.00%	100.00%	0.00%	100.00%	-	7,217	-
0043-070-1000-1000-4234 - Disability Insurance	\$ 248	Collection	0.00%	100.00%	0.00%	100.00%	-	248	-
0043-070-1000-1000-4237 - Retiree Health Savings Account	\$ 208	Collection	0.00%	100.00%	0.00%	100.00%	-	208	-
0043-070-1000-1000-4238 - Veba Funding	\$ 3,971	Collection	0.00%	100.00%	0.00%	100.00%	-	3,971	-
0043-070-1000-1000-4240 - Workers Comp	\$ 115	Collection	0.00%	100.00%	0.00%	100.00%	-	115	-
0043-070-1000-1000-4250 - Social Security-Employer	\$ 3,147	Collection	0.00%	100.00%	0.00%	100.00%	-	3,147	-
0043-070-1000-1000-4257 - Excess Pension Refund	\$ 47,692	Collection	0.00%	100.00%	0.00%	100.00%	-	47,692	-
0043-070-1000-1000-4259 - Retirement Contribution	\$ 9,484	Collection	0.00%	100.00%	0.00%	100.00%	-	9,484	-
0043-070-1000-1000-4260 - Insurance Premiums	\$ 195,798	Collection	0.00%	100.00%	0.00%	100.00%	-	195,798	-
0043-070-1000-1000-4270 - Dental Insurance	\$ 564	Collection	0.00%	100.00%	0.00%	100.00%	-	564	-
0043-070-1000-1000-4280 - Optical Insurance	\$ 66	Collection	0.00%	100.00%	0.00%	100.00%	-	66	-
0043-070-1000-1000-4300 - Dues & Licenses	\$ 12,000	Collection	0.00%	100.00%	0.00%	100.00%	-	12,000	-
0043-070-1000-1000-4310 - Municipal Service Charges	\$ 664,843	Collection	0.00%	100.00%	0.00%	100.00%	-	664,843	-
0043-070-1000-1000-4420 - Transfer To Other Funds	\$ 517,586	Customer	100.00%	0.00%	0.00%	100.00%	517,586	-	-
Transfer to Other funds	\$ 151,281	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	40,662	110,619
0043-070-1000-1000-4440 - Unemployment Compensation	\$ 114	Collection	0.00%	100.00%	0.00%	100.00%	-	114	-
0043-070-8501-9000-1100 - Permanent Time Worked	\$ 63,416	Collection	0.00%	100.00%	0.00%	100.00%	-	63,416	-
0043-070-8501-9000-1751 - Benefit Waiver Pay	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-8501-9000-1800 - Equipment Allowance	\$ 510	Collection	0.00%	100.00%	0.00%	100.00%	-	510	-
0043-070-8501-9000-4220 - Life Insurance	\$ 147	Collection	0.00%	100.00%	0.00%	100.00%	-	147	-
0043-070-8501-9000-4230 - Medical Insurance	\$ 9,275	Collection	0.00%	100.00%	0.00%	100.00%	-	9,275	-
0043-070-8501-9000-4234 - Disability Insurance	\$ 339	Collection	0.00%	100.00%	0.00%	100.00%	-	339	-

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-070-8501-9000-4237 - Retiree Health Savings Account	\$ 341	Collection	0.00%	100.00%	0.00%	100.00%	-	341	-
0043-070-8501-9000-4238 - Veba Funding	\$ 4,288	Collection	0.00%	100.00%	0.00%	100.00%	-	4,288	-
0043-070-8501-9000-4240 - Workers Comp	\$ 681	Collection	0.00%	100.00%	0.00%	100.00%	-	681	-
0043-070-8501-9000-4250 - Social Security-Employer	\$ 4,889	Collection	0.00%	100.00%	0.00%	100.00%	-	4,889	-
0043-070-8501-9000-4259 - Retirement Contribution	\$ 14,648	Collection	0.00%	100.00%	0.00%	100.00%	-	14,648	-
0043-070-8501-9000-4270 - Dental Insurance	\$ 766	Collection	0.00%	100.00%	0.00%	100.00%	-	766	-
0043-070-8501-9000-4280 - Optical Insurance	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-8501-9000-4440 - Unemployment Compensation	\$ 154	Collection	0.00%	100.00%	0.00%	100.00%	-	154	-
0043-075-5000-1000-1100 - Permanent Time Worked	\$ 413,448	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	413,448
0043-075-5000-1000-1741 - Longevity Pay	\$ 1,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,200
0043-075-5000-1000-1751 - Benefit Waiver Pay	\$ 1,710	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,710
0043-075-5000-1000-1800 - Equipment Allowance	\$ 2,190	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,190
0043-075-5000-1000-2100 - Professional Services	\$ 225,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	225,000
0043-075-5000-1000-2240 - Telecommunications	\$ 7,725	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,725
0043-075-5000-1000-2310 - Building Maintenance	\$ 4,120	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,120
0043-075-5000-1000-2320 - Equipment Maintenance	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5000-1000-2330 - Radio Maintenance	\$ 71	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	71
0043-075-5000-1000-2331 - Radio System Service Charge	\$ 8,877	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	8,877
0043-075-5000-1000-2430 - Contracted Services	\$ 81,678	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	81,678
0043-075-5000-1000-2500 - Printing	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-075-5000-1000-2640 - Software	\$ 7,781	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,781
0043-075-5000-1000-2660 - Software Maintenance	\$ 9,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	9,000
0043-075-5000-1000-2700 - Conference Training & Travel	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5000-1000-2702 - Educational Reimbursement	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5000-1000-2850 - Advertising	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5000-1000-2951 - Employee Recognition	\$ 1,881	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,881
0043-075-5000-1000-3100 - Postage	\$ 300	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	300
0043-075-5000-1000-3300 - Uniforms & Accessories	\$ 200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	200
0043-075-5000-1000-3400 - Materials & Supplies	\$ 7,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,500
0043-075-5000-1000-4220 - Life Insurance	\$ 801	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	801
0043-075-5000-1000-4230 - Medical Insurance	\$ 63,639	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	63,639
0043-075-5000-1000-4234 - Disability Insurance	\$ 1,653	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,653
0043-075-5000-1000-4237 - Retiree Health Savings Account	\$ 1,320	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,320
0043-075-5000-1000-4238 - Veba Funding	\$ 59,248	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	59,248
0043-075-5000-1000-4240 - Workers Comp	\$ 4,949	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,949
0043-075-5000-1000-4250 - Social Security-Employer	\$ 31,817	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	31,817
0043-075-5000-1000-4259 - Retirement Contribution	\$ 95,783	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	95,783
0043-075-5000-1000-4270 - Dental Insurance	\$ 5,992	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,992
0043-075-5000-1000-4280 - Optical Insurance	\$ 701	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	701
0043-075-5000-1000-4300 - Dues & Licenses	\$ 1,600	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,600
0043-075-5000-1000-4423 - Transfer To IT Fund	\$ 100,029	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	100,029
0043-075-5000-1000-4440 - Unemployment Compensation	\$ 1,202	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,202
0043-075-5000-1100-3300 - Uniforms & Accessories	\$ 16,480	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,480
0043-075-5000-1100-4239 - Retiree Medical Insurance	\$ 455,760	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	455,760
0043-075-5300-7031-2421 - Fleet Maintenance & Repair	\$ 29,299	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	29,299
0043-075-5300-7031-2423 - Fleet Depreciation	\$ 24,005	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	24,005
0043-075-5300-7031-2424 - Fleet Management	\$ 1,730	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,730
0043-075-5300-7043-1100 - Permanent Time Worked	\$ 964,373	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	964,373
0043-075-5300-7043-1401 - Overtime Paid-Permanent	\$ 162,740	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	162,740
0043-075-5300-7043-1721 - Annual Sick Leave Payout	\$ 3,223	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,223
0043-075-5300-7043-1741 - Longevity Pay	\$ 5,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,400
0043-075-5300-7043-1751 - Benefit Waiver Pay	\$ 1,800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,800
0043-075-5300-7043-2210 - Natural Gas	\$ 200,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	200,000

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-075-5300-7043-2211 - Other Fuels	\$ 30,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	30,000
0043-075-5300-7043-2220 - Electricity	\$ 1,150,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,150,000
0043-075-5300-7043-2230 - Water	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5300-7043-2430 - Contracted Services	\$ 67,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	67,000
0043-075-5300-7043-3200 - Chemicals	\$ 50,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	50,000
0043-075-5300-7043-3400 - Materials & Supplies	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5300-7043-4215 - Deferred Comp Contributions	\$ 520	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	520
0043-075-5300-7043-4220 - Life Insurance	\$ 872	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	872
0043-075-5300-7043-4230 - Medical Insurance	\$ 201,062	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	201,062
0043-075-5300-7043-4237 - Retiree Health Savings Account	\$ 6,640	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,640
0043-075-5300-7043-4238 - Veba Funding	\$ 127,072	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	127,072
0043-075-5300-7043-4240 - Workers Comp	\$ 16,808	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,808
0043-075-5300-7043-4250 - Social Security-Employer	\$ 74,098	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	74,098
0043-075-5300-7043-4259 - Retirement Contribution	\$ 224,762	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	224,762
0043-075-5300-7043-4270 - Dental Insurance	\$ 16,890	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,890
0043-075-5300-7043-4280 - Optical Insurance	\$ 1,980	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,980
0043-075-5300-7043-4300 - Dues & Licenses	\$ 16,625	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,625
0043-075-5300-7043-4423 - Transfer To IT Fund	\$ 48,505	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	48,505
0043-075-5300-7043-4440 - Unemployment Compensation	\$ 3,616	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,616
0043-075-5300-7051-2210 - Natural Gas	\$ 1,132	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,132
0043-075-5300-7051-2220 - Electricity	\$ 14,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	14,500
0043-075-5300-7051-3400 - Materials & Supplies	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5300-7053-1100 - Permanent Time Worked	\$ 177,004	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	177,004
0043-075-5300-7053-1200 - Temporary Pay	\$ 15,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	15,000
0043-075-5300-7053-1401 - Overtime Paid-Permanent	\$ 3,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,500
0043-075-5300-7053-1741 - Longevity Pay	\$ 525	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	525
0043-075-5300-7053-1751 - Benefit Waiver Pay	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5300-7053-2100 - Professional Services	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5300-7053-2320 - Equipment Maintenance	\$ 10,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	10,000
0043-075-5300-7053-2420 - Rent Outside Vehicles/Mileage	\$ 100	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	100
0043-075-5300-7053-2700 - Conference Training & Travel	\$ 3,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,000
0043-075-5300-7053-3100 - Postage	\$ 800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	800
0043-075-5300-7053-3200 - Chemicals	\$ 7,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,000
0043-075-5300-7053-3300 - Uniforms & Accessories	\$ 800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	800
0043-075-5300-7053-3400 - Materials & Supplies	\$ 17,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	17,500
0043-075-5300-7053-3405 - Safety Related supplies	\$ 1,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,500
0043-075-5300-7053-3440 - Property Plant & Equipment <	\$ 3,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,000
0043-075-5300-7053-4220 - Life Insurance	\$ 126	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	126
0043-075-5300-7053-4230 - Medical Insurance	\$ 26,913	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,913
0043-075-5300-7053-4237 - Retiree Health Savings Account	\$ 2,084	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,084
0043-075-5300-7053-4238 - Veba Funding	\$ 7,942	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,942
0043-075-5300-7053-4240 - Workers Comp	\$ 498	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	498
0043-075-5300-7053-4250 - Social Security-Employer	\$ 13,548	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	13,548
0043-075-5300-7053-4259 - Retirement Contribution	\$ 41,009	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	41,009
0043-075-5300-7053-4270 - Dental Insurance	\$ 2,118	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,118
0043-075-5300-7053-4280 - Optical Insurance	\$ 248	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	248
0043-075-5300-7053-4300 - Dues & Licenses	\$ 2,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,500
0043-075-5300-7053-4440 - Unemployment Compensation	\$ 679	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	679
0043-075-5300-7055-2430 - Contracted Services	\$ 950,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	950,000
0043-075-5300-7055-3200 - Chemicals	\$ 395,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	395,000
0043-075-5300-7055-3400 - Materials & Supplies	\$ 7,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,000
0043-075-5300-7055-4300 - Dues & Licenses	\$ 32,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	32,000
0043-075-5300-7057-2430 - Contracted Services	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000



**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
0043-075-5300-7057-2500 - Printing	\$ 150	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	150
0043-075-5300-7057-3400 - Materials & Supplies	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5300-7060-2421 - Fleet Maintenance & Repair	\$ 10,988	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	10,988
0043-075-5300-7060-2422 - Fleet Fuel	\$ 330	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	330
0043-075-5300-7060-2424 - Fleet Management	\$ 1,903	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,903
0043-075-5600-7043-1100 - Permanent Time Worked	\$ 718,078	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	718,078
0043-075-5600-7043-1401 - Overtime Paid-Permanent	\$ 54,590	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	54,590
0043-075-5600-7043-1601 - Severance Pay	\$ 67,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	67,400
0043-075-5600-7043-1741 - Longevity Pay	\$ 7,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,200
0043-075-5600-7043-2100 - Professional Services	\$ 15,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	15,000
0043-075-5600-7043-2320 - Equipment Maintenance	\$ 132,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	132,500
0043-075-5600-7043-2430 - Contracted Services	\$ 65,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	65,000
0043-075-5600-7043-3400 - Materials & Supplies	\$ 90,125	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	90,125
0043-075-5600-7043-3404 - Equipment Parts/Maintenance	\$ 139,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	139,000
0043-075-5600-7043-3440 - Property Plant & Equipment < \$	\$ 3,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,250
0043-075-5600-7043-4215 - Deferred Comp Contributions	\$ 520	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	520
0043-075-5600-7043-4220 - Life Insurance	\$ 710	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	710
0043-075-5600-7043-4230 - Medical Insurance	\$ 156,513	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	156,513
0043-075-5600-7043-4237 - Retiree Health Savings Account	\$ 2,490	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,490
0043-075-5600-7043-4238 - Veba Funding	\$ 127,072	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	127,072
0043-075-5600-7043-4240 - Workers Comp	\$ 11,293	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	11,293
0043-075-5600-7043-4250 - Social Security-Employer	\$ 55,038	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	55,038
0043-075-5600-7043-4259 - Retirement Contribution	\$ 167,538	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	167,538
0043-075-5600-7043-4270 - Dental Insurance	\$ 12,386	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	12,386
0043-075-5600-7043-4280 - Optical Insurance	\$ 1,452	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,452
0043-075-5600-7043-4423 - Transfer To IT Fund	\$ 24,940	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	24,940
0043-075-5600-7043-4440 - Unemployment Compensation	\$ 2,486	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,486
0043-075-5600-7051-2310 - Building Maintenance	\$ 2,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,200
0043-075-5600-7051-2320 - Equipment Maintenance	\$ 6,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,250
0043-075-5600-7051-2430 - Contracted Services	\$ 7,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,250
0043-075-5600-7051-3400 - Materials & Supplies	\$ 4,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,000
0043-075-5600-7051-3404 - Equipment Parts/Maintenance	\$ 6,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,000
0043-075-5600-7055-2310 - Building Maintenance	\$ 20,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	20,000
0043-075-5600-7055-2320 - Equipment Maintenance	\$ 20,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	20,000
0043-075-5600-7055-2430 - Contracted Services	\$ 50,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	50,000
0043-075-5600-7055-3400 - Materials & Supplies	\$ 6,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,250
0043-075-5600-7055-3404 - Equipment Parts/Maintenance	\$ 40,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	40,400
0043-078-8000-1000-1100 - Permanent Time Worked	\$ 23,857	Customer	100.00%	0.00%	0.00%	100.00%	23,857	-	-
0043-078-8000-1000-4220 - Life Insurance	\$ 76	Customer	100.00%	0.00%	0.00%	100.00%	76	-	-
0043-078-8000-1000-4230 - Medical Insurance	\$ 4,405	Customer	100.00%	0.00%	0.00%	100.00%	4,405	-	-
0043-078-8000-1000-4234 - Disability Insurance	\$ 149	Customer	100.00%	0.00%	0.00%	100.00%	149	-	-
0043-078-8000-1000-4238 - Veba Funding	\$ 4,765	Customer	100.00%	0.00%	0.00%	100.00%	4,765	-	-
0043-078-8000-1000-4240 - Workers Comp	\$ 67	Customer	100.00%	0.00%	0.00%	100.00%	67	-	-
0043-078-8000-1000-4250 - Social Security-Employer	\$ 1,825	Customer	100.00%	0.00%	0.00%	100.00%	1,825	-	-
0043-078-8000-1000-4259 - Retirement Contribution	\$ 5,511	Customer	100.00%	0.00%	0.00%	100.00%	5,511	-	-
0043-078-8000-1000-4270 - Dental Insurance	\$ 338	Customer	100.00%	0.00%	0.00%	100.00%	338	-	-
0043-078-8000-1000-4280 - Optical Insurance	\$ 40	Customer	100.00%	0.00%	0.00%	100.00%	40	-	-
0043-078-8000-1000-4440 - Unemployment Compensation	\$ 68	Customer	100.00%	0.00%	0.00%	100.00%	68	-	-
	\$ 500,000	Indirect	4.64%	25.63%	69.73%	100.00%	23,219	128,151	348,630
	\$ 1,696,680	Indirect	4.64%	25.63%	69.73%	100.00%	78,789	434,864	1,183,027
Projects Funded with Cash	\$ 2,198,515	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	590,927	1,607,589

**Wastewater System Operating & Debt Service Expense Allocation to Functions**

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							<b>723,082</b>	<b>7,213,404</b>	<b>19,623,737</b>
Debt Service		Indirect (C & T)	0.00%	26.88%	73.12%	100.00%			
2013 Series Refunding		Indirect (C & T)	0.00%	26.88%	73.12%	100.00%			
Principal	\$ 1,890,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	508,002	1,381,998
Interest	\$ 324,338	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	87,177	237,161
3010-01	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 65,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	17,471	47,529
Interest	\$ 19,876	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	5,342	14,534
3010-02	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 65,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	17,471	47,529
Interest	\$ 21,750	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	5,846	15,904
3010-03	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 60,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	16,127	43,873
Interest	\$ 25,494	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	6,852	18,642
3010-04	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 35,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	9,407	25,593
Interest	\$ 16,918	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	4,547	12,370
3002-01	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 4,788	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,287	3,501
3002-02	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 5,515	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,482	4,033
3002-03	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 6,336	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,703	4,633
3002-04	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 50,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	13,439	36,561
Interest	\$ 7,637	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,053	5,584
3002-05	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 12,625	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	3,393	9,232
WWTP/SRF-PHASE I	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 1,415,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	380,330	1,034,670
Interest	\$ 12,625	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	3,393	9,232
WWTP/SRF-PHASE II	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 3,010,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	809,041	2,200,959
Interest	\$ 1,436,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	385,974	1,050,026
Series 2016, Refunding	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 405,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	108,858	296,142
Interest	\$ 388,781	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	104,498	284,283
<b>TOTAL EXPENDITURES</b>	<b>\$ 27,560,224</b>						<b>\$ 723,082</b>	<b>\$ 7,213,404</b>	<b>\$ 19,623,737</b>
% Allocation							2.62%	26.17%	71.20%
Expenses Excluded From Indirect Allocation									
Indirect							\$ 119,436	\$ 659,211	\$ 1,793,354
Indirect (C & T)							\$ -	\$ 3,222,450	\$ 8,766,529
Net Expenses for Indirect Allocation							603,646	3,331,743	9,063,855
% of Expenditures					(Basis of Indirect Allocations ->)		4.64%	25.63%	69.73%

















Water System Operating & Debt Service Expense Allocation to Functions

Table with columns: Account, Test Year COS, Allocation Basis/Factor, Supply % Allocation, Treatment % Allocation, Transmission/DI % Allocation, Meters/Services % Allocation, Fire Protection % Allocation, Total % Allocation, Supply \$ Allocation, Treatment \$ Allocation, Transmission/DI \$ Allocation, Meters/Services \$ Allocation. Rows include various utility services like Life Insurance, Medical Insurance, Retirement Contribution, etc., and Debt Service sections.

Water System Operating & Debt Service Expense Allocation to Functions

Account	Test Year COS	Allocation Basis/Factor	Transmission/D					Total % Allocation	Supply \$ Allocation	Treatment \$ Allocation	Transmission/Distribution \$ Allocation	Meters/Services \$ Allocation
			Supply % Allocation	Treatment % Allocation	istribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation					
Principal	\$ 220,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,234,065	14,238,843	12,851,499	2,900,490
Interest	\$ 90,765	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	6,158	78,764	135,078	-
Series 2012 (Refinance of Z,W,X)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,541	32,496	55,729	-
Principal	\$ 670,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-
Interest	\$ 91,827	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	18,755	239,872	411,373	-
DWRF FY 2014 (7375-01)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,571	32,876	56,381	-
Principal	\$ 81,360	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-
Interest	\$ 128,484	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,278	29,128	49,954	-
									3,597	46,000	78,888	-
	\$ -	5 Year CIP Projects	15.39%	40.62%	43.99%	0.00%	0.00%	100%	-	-	-	-
Projects Funded with Cash	\$ 10,172,250	5 Year CIP Projects	15.39%	40.62%	43.99%	0.00%	0.00%	100%	1,565,514	4,132,252	4,474,484	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 32,727,825</b>								<b>\$ 2,234,065</b>	<b>\$ 14,238,843</b>	<b>\$ 12,851,499</b>	<b>\$ 2,900,490</b>



# CITY OF ANN ARBOR PUBLIC SERVICES BUDGET

3.12.18

ANDREW BURNHAM – STANTEC CONSULTING  
MARTI PRASCHAN – PUBLIC SERVICE CHIEF OF STAFF  
CRAIG HUPY – PUBLIC SERVICE ADMINISTRATOR



# COST OF SERVICES STUDY

Water • Wastewater

## PHASE 1

What does it cost to operate & maintain our systems?

- Operate water & wastewater plants
- Repair/replace pipes
- Repay bonds for past system investments
- Ensure adequate reserves for future needs

REVENUE REQUIREMENTS



## PHASE 2

Who uses the system & how do they use it?

- How should users be categorized?
- How do costs vary by user type?

COST ALLOCATION



## PHASE 3

How should we structure rates?

- Based on the cost to serve that customer type
- Does it reflect community values?
- How will it impact customers?

RATE DESIGN



## PHASE 4

Understand national trends

- Conduct fee & policy review

ANALYSIS



Advisory Committee Meetings

Council Presentation

Public Hearings

2017

Jul

Aug

Sep

Oct

Nov

Dec

2018

Jan

Feb

Mar

Apr

May

# Purpose of the Study

- 🔥 **Projection of full cost to serve**
  - 🔥 Develop multi-year financial management plan
- 🔥 **Evaluate water and sewer cost allocation, rate design, and affordability impact**
- 🔥 **Engage community stakeholders**
  - 🔥 Solicit input and comments regarding community values related to water and sewer rates
- 🔥 **Develop dynamic model for future use**
  - 🔥 Long-term sustainability & ongoing financial management



# Public Engagement



- 🌱 **Survey – June 2017**

- 🌱 600+ responses

- 🌱 **Focus Groups – November 2017**

- 🌱 **Advisory Committee – July- December 2017**

- 🌱 Cross-section representatives from various community sectors and neighborhoods



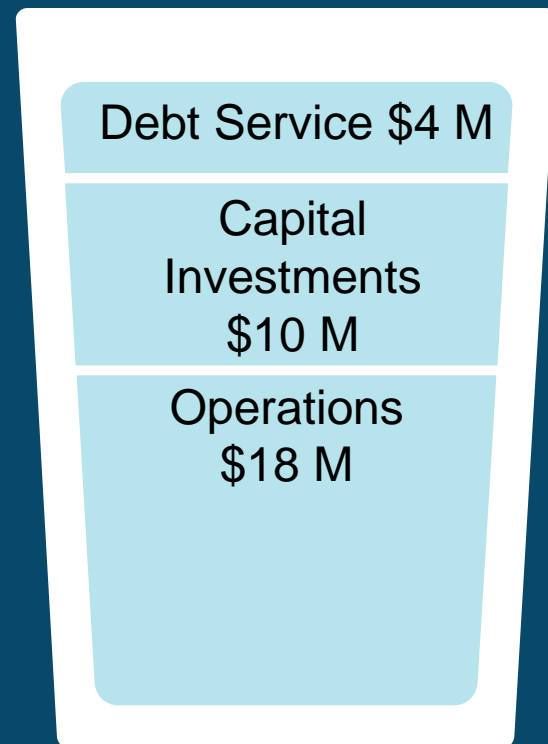
# Foundation of the Rate Study

1. Adequate revenue to meet identified requirements
  - Capital, Operating, Debt Service, and Asset Management
2. Fair and equitable distribution of cost
  - Last cost of service was performed in 2003
  - Based upon industry best practices and legal requirements
  - Utilizing detailed AMI data – unique and better analysis
3. Evaluate and address community objectives
  - Affordability through rate and non-rate programs

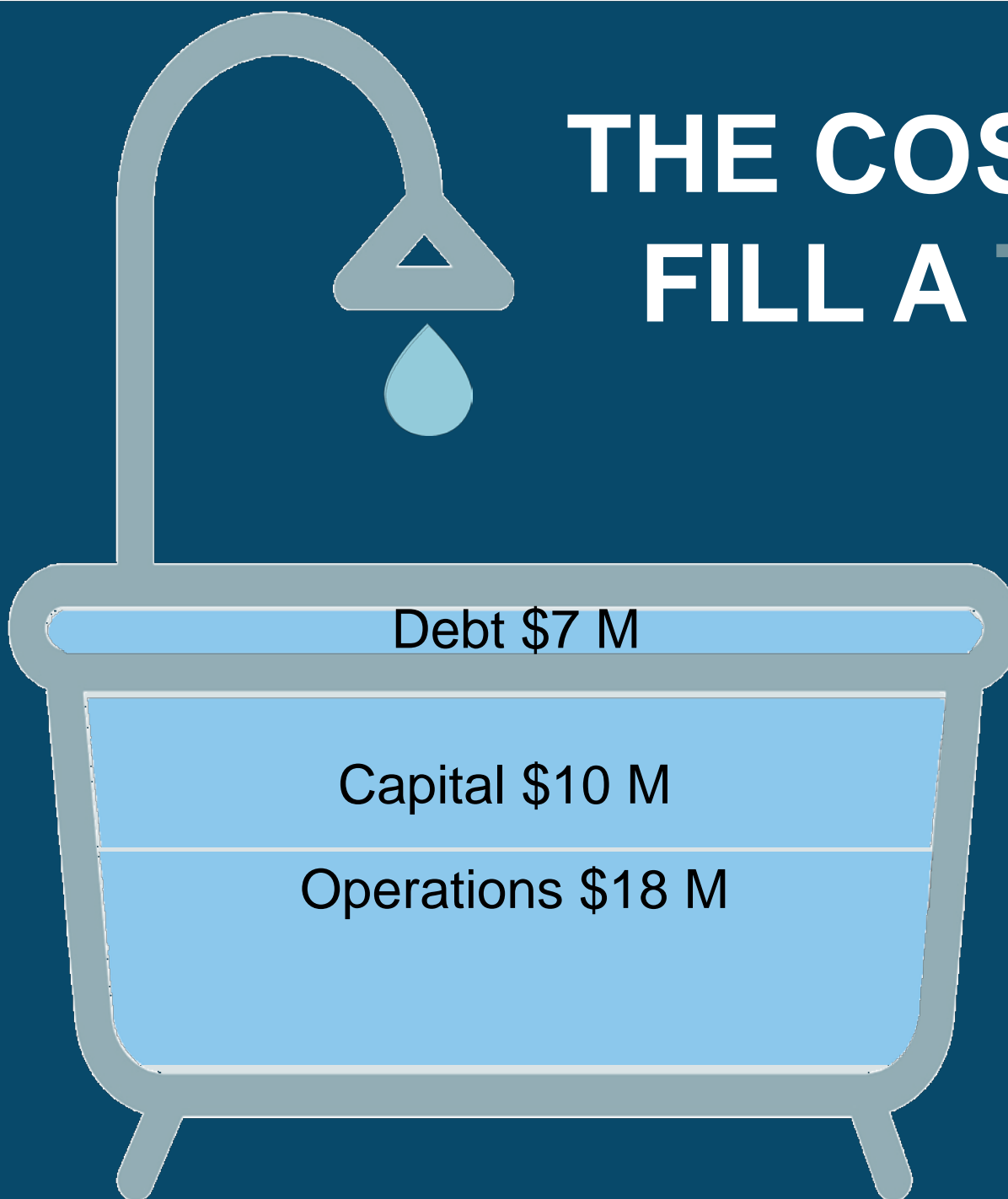




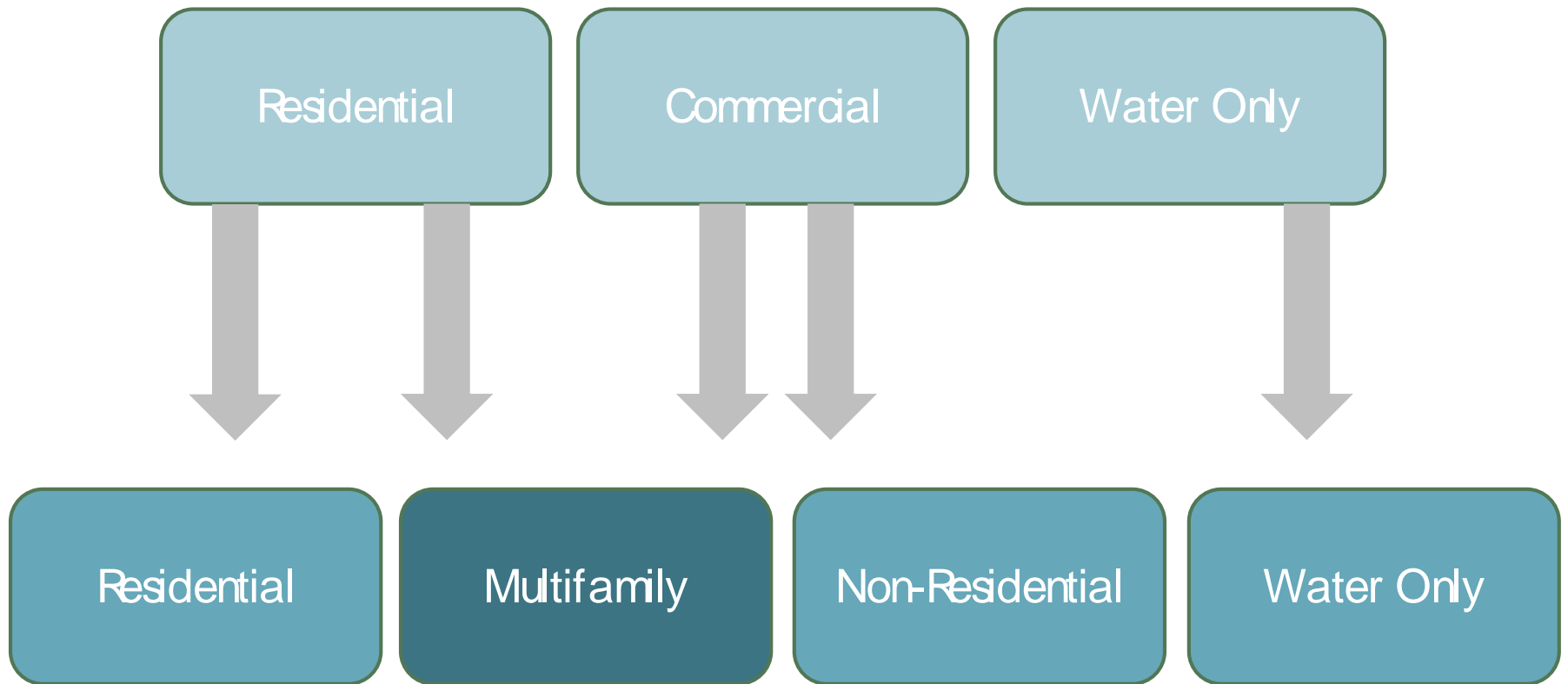
# THE COST TO FILL A GLASS OF WATER



# THE COST TO FILL A TUB



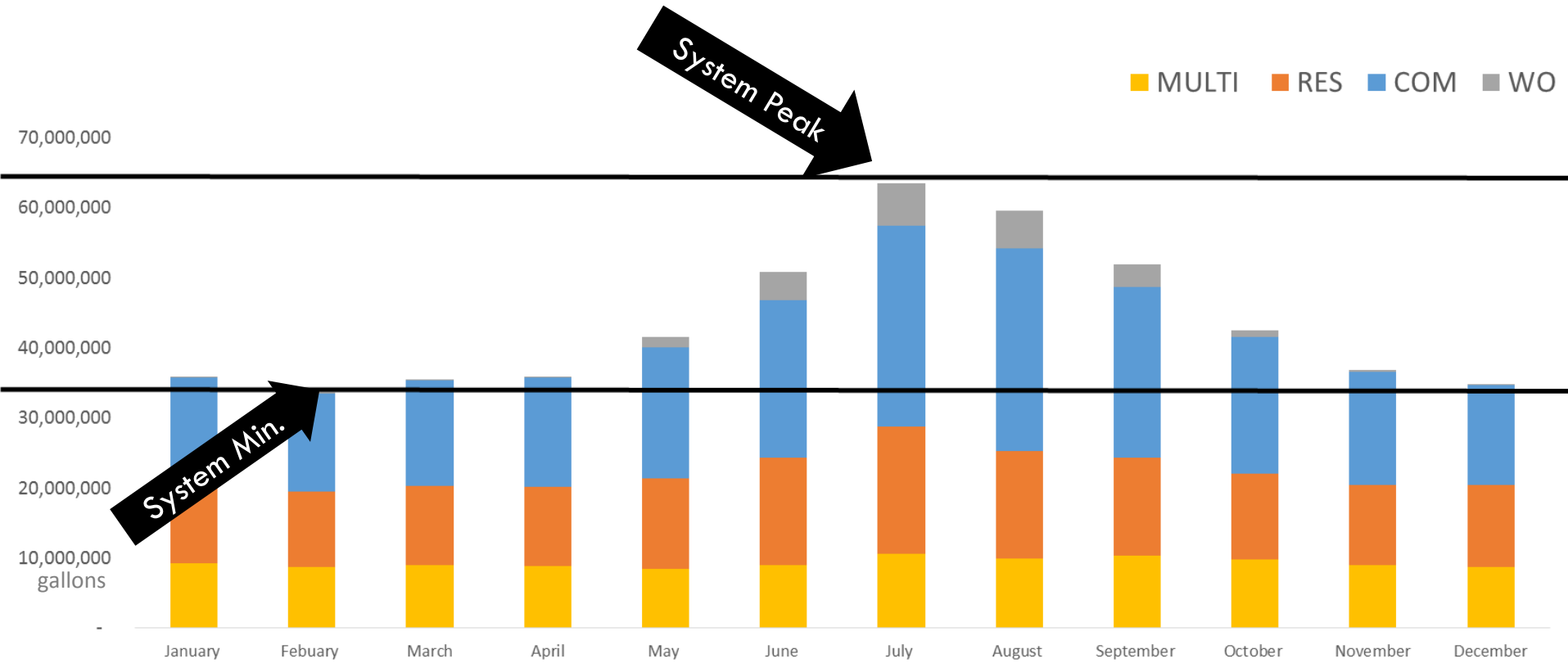
# Rate Classifications



Millions of data points from the Automated Meter Infrastructure Data were used for FY16 on a daily or hourly basis

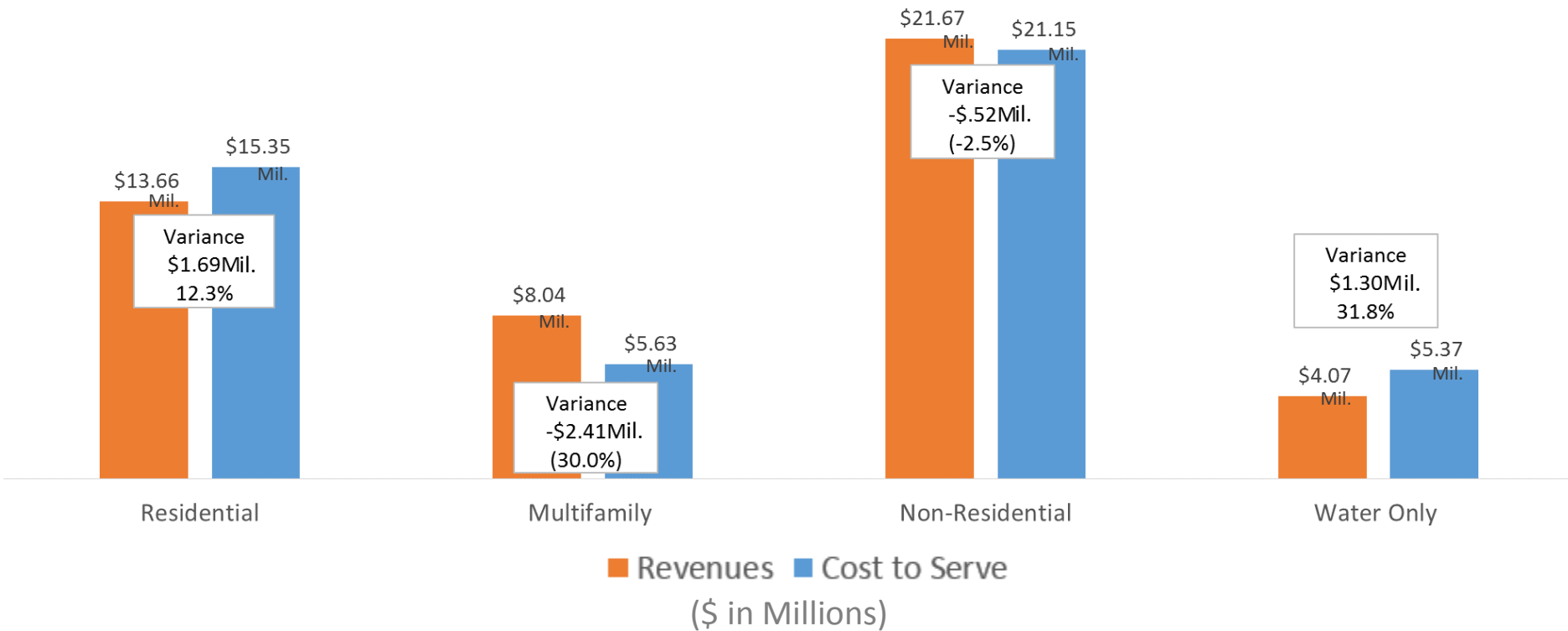


# Basis for New Rate Classification



# Cost to Serve Analysis

For each customer class, what does it cost to provide safe, reliable services based on their observed consumption profiles?



Water and sewer revenue based on FY 2016 billing data and rates



# Proposed Water Rate Design



## Residential

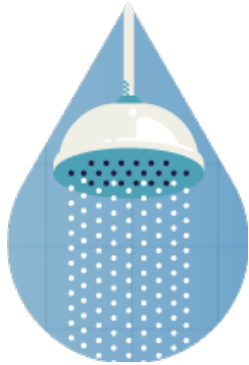
- 🌿 Fixed Charge
- 🌿 Volumetric Rate
  - 🌿 Inclining block
  - 🌿 4 Tiers based on data analysis
    - 🌿 Tier 1 & 2 - Indoor use
    - 🌿 Tier 3 & 4 - Outdoor use

## Non-Residential, Multi-Family & Water Only

- 🌿 Fixed Charge
- 🌿 Volumetric Rate
  - 🌿 Uniform (flat) rate based on consumption
  - 🌿 Water Only does not receive sewer charges



# 1 CCF = 748 Gallons .... OR....



43 showers



30 minutes of  
watering with a  
hose



213 toilet flushes

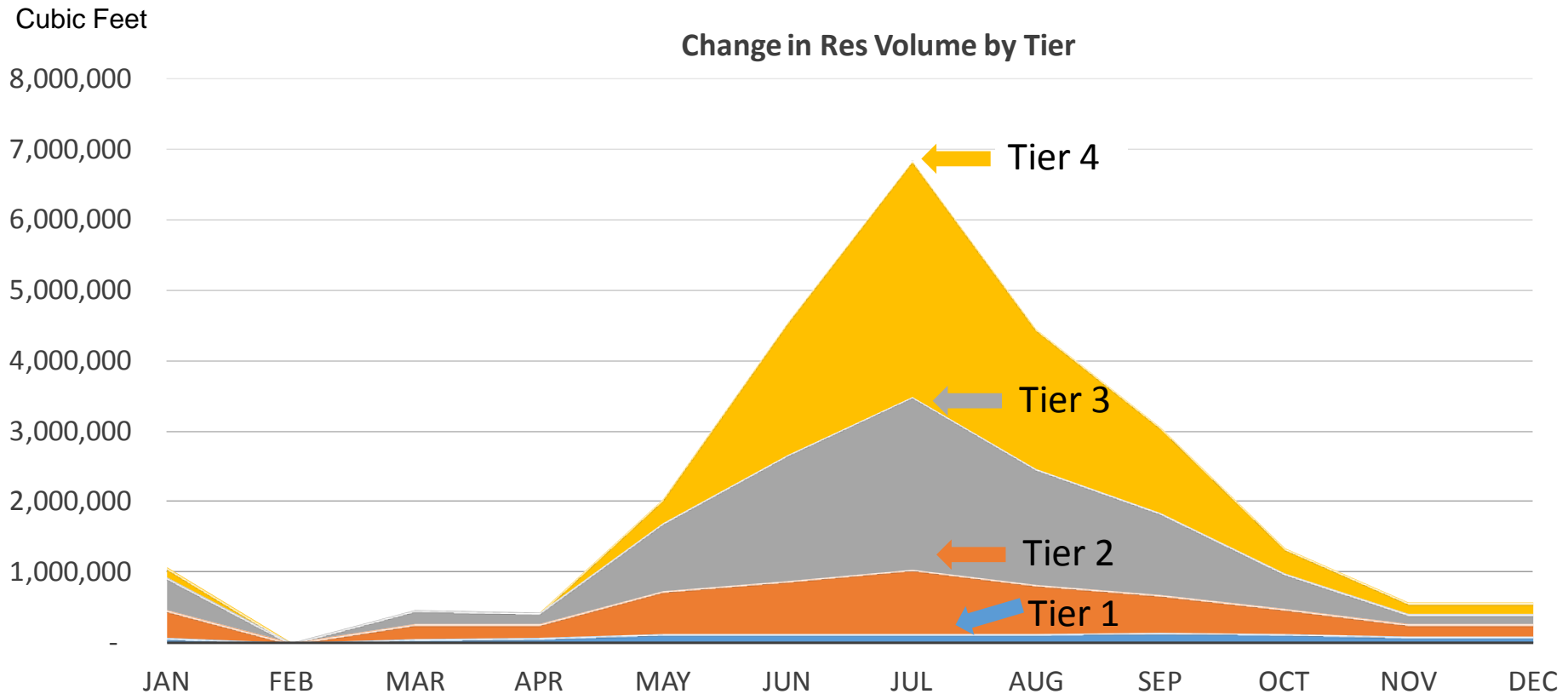


25 loads of laundry



11,968 cups of water

# Why add a new water residential tier?

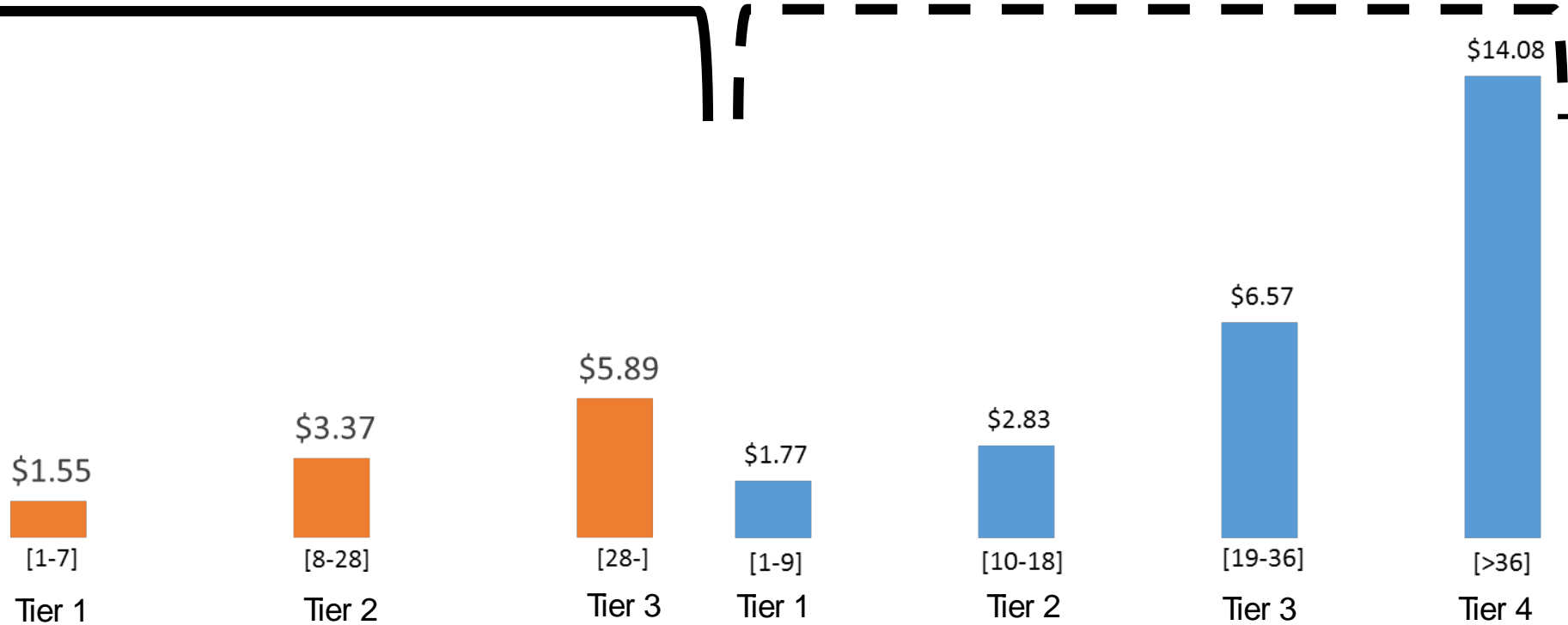




# Water Residential Pricing & Structure

Current

Proposed

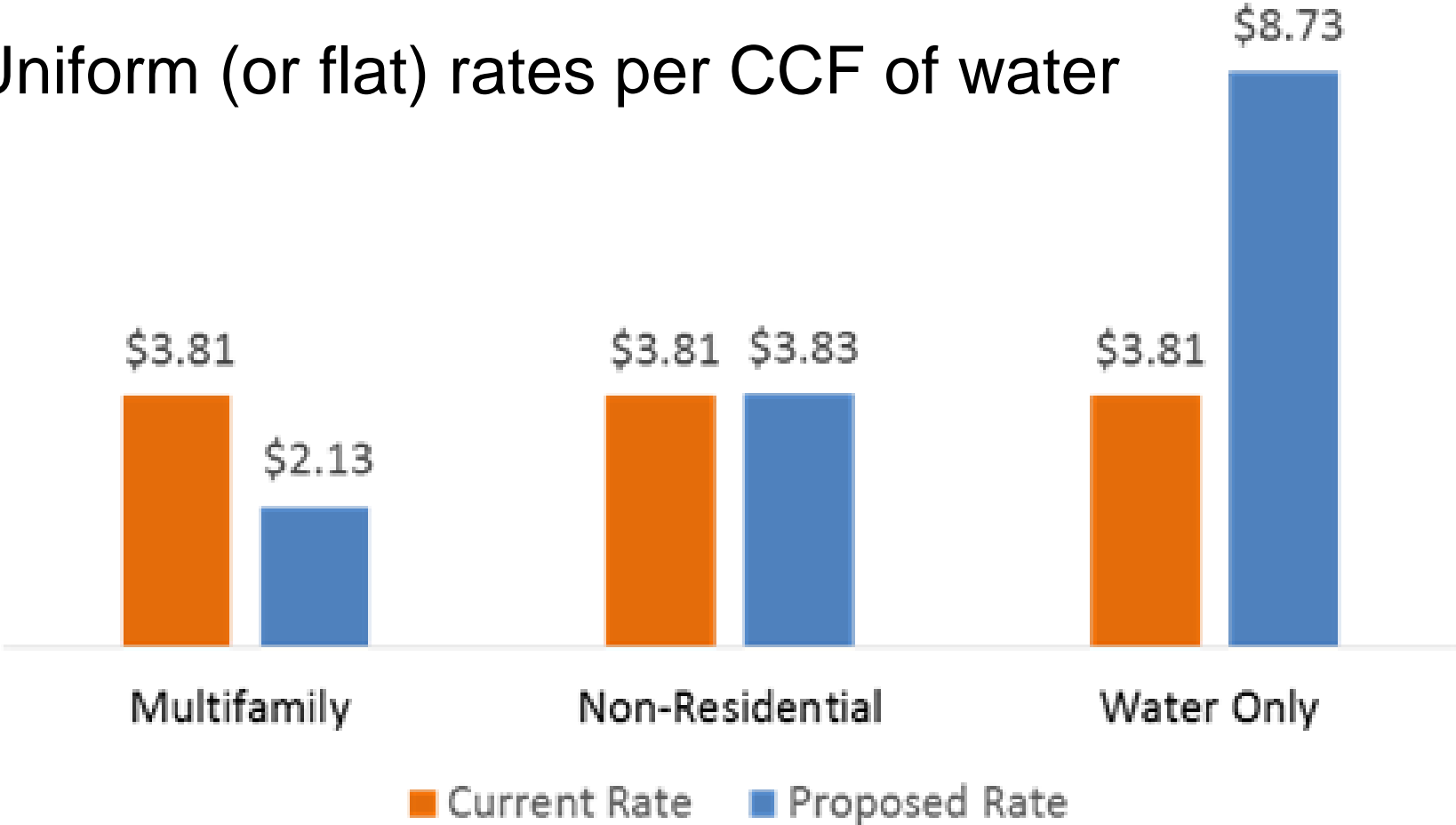


- Rates are per CCF; 1 CCF = 748 Gallons
- Prices are before 10% on time payment discount



# Non-Residential, Multifamily & Water Only Volumetric

Uniform (or flat) rates per CCF of water



Billed in CCF; 1 CCF= 748 Gallons

Rates shown before 10% on time payment discount



# Proposed Sewer Rate Design



## Residential

- Fixed Charge
- Volumetric Rate
  - Uniform (flat) rate based on metered water use
  - Winter average water use applied in summer months

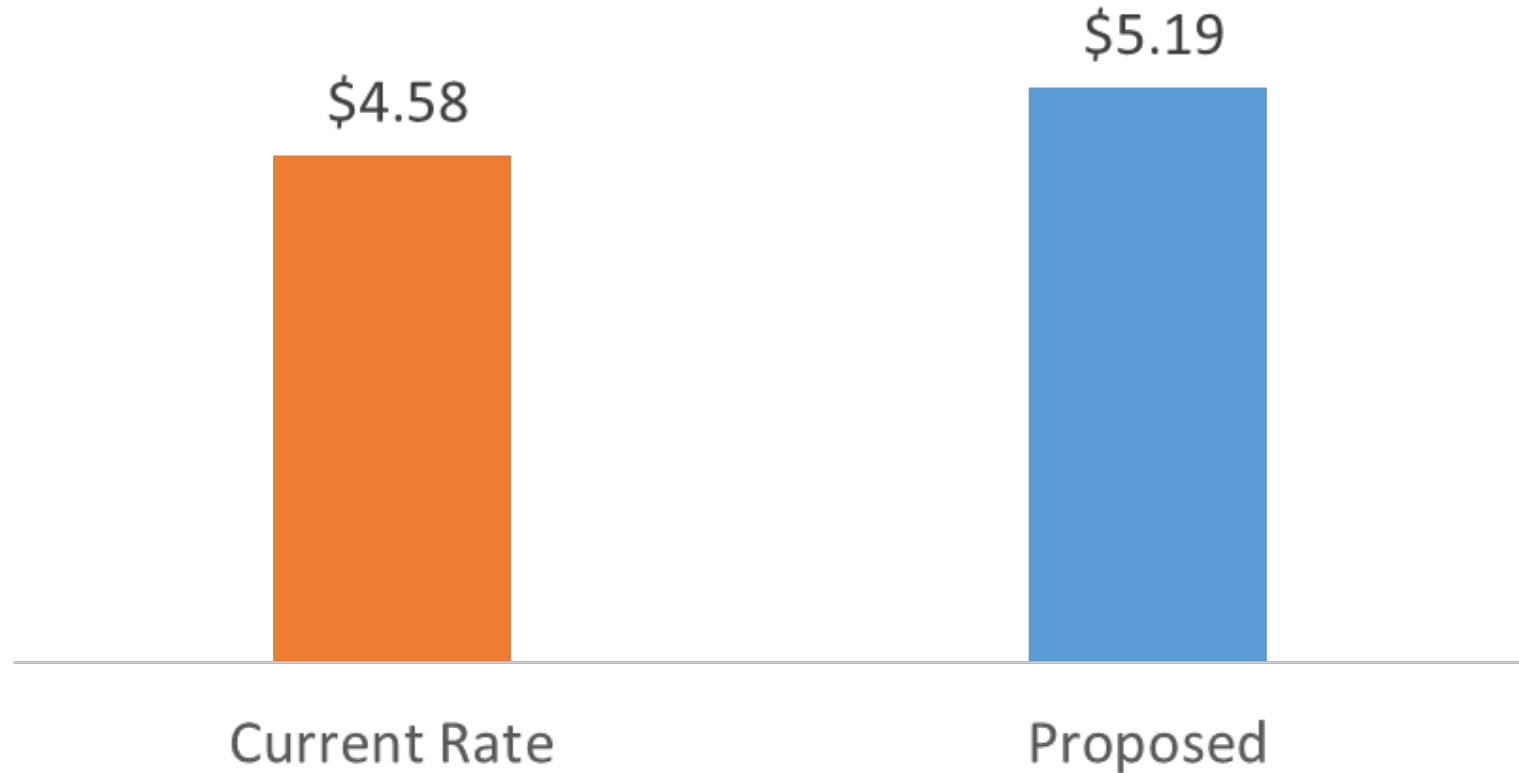
## Non-Residential and Multi-Family

- Fixed Charge
- Volumetric Rate
  - Uniform (flat) rate based on metered water use

Volume billed based on CCF; 1 CCF = 748 Gallons



# Sewer Volumetric Rate



Billed in CCF; 1 CCF = 748 Gallons



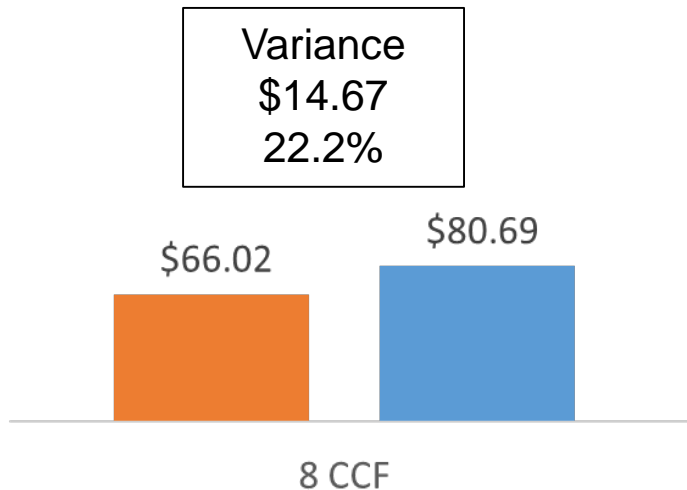
# Footing Drain Disconnection (FDD)

- Program to disconnect footing drains from sewer system
  - About 2,000 homes been disconnected via the program
  - Estimated 15,000 homes still connected
- Evaluated in rate study per SSWEE Citizens Advisory Committee
- Challenges:
  - Equity: No different than properties that never connected
  - Data: Require audit/database of all connected homes
  - Precedent: Not aware of other credits/surcharges for FDD
- Suggestions: Communication of benefits and alternative funding programs



# Residential Quarterly Water & Sewer Bill Impact **Scenario 1**

- 5/8" Meter
- Two person household with minimal outdoor water usage –8 CCF per quarter



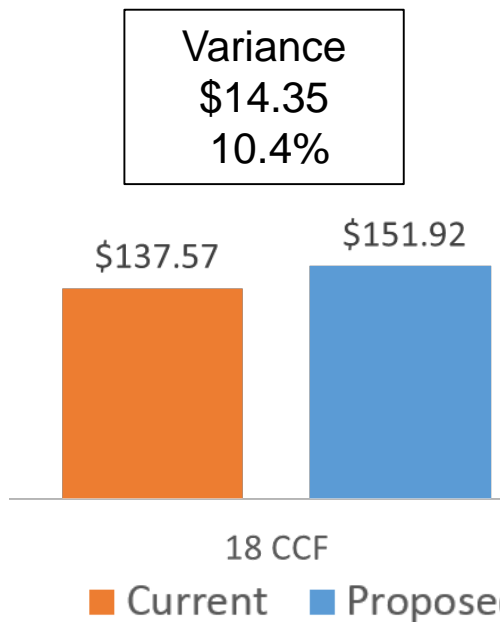
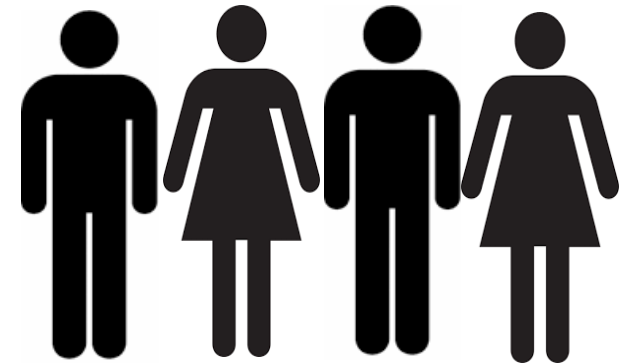
■ Current ■ Proposed  
8 CCF = 5,984 Gallons

Prices shown net 10% on time payment discount



# Residential Water & Sewer Quarterly Bill Impact **Scenario 2**

- 5/8" Meter
- Four person household with minimal outdoor usage –18 CCF per Quarter



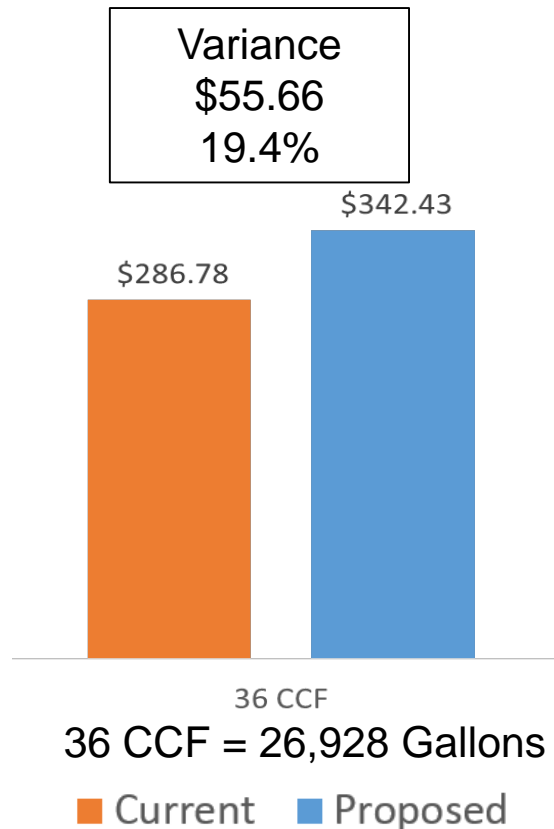
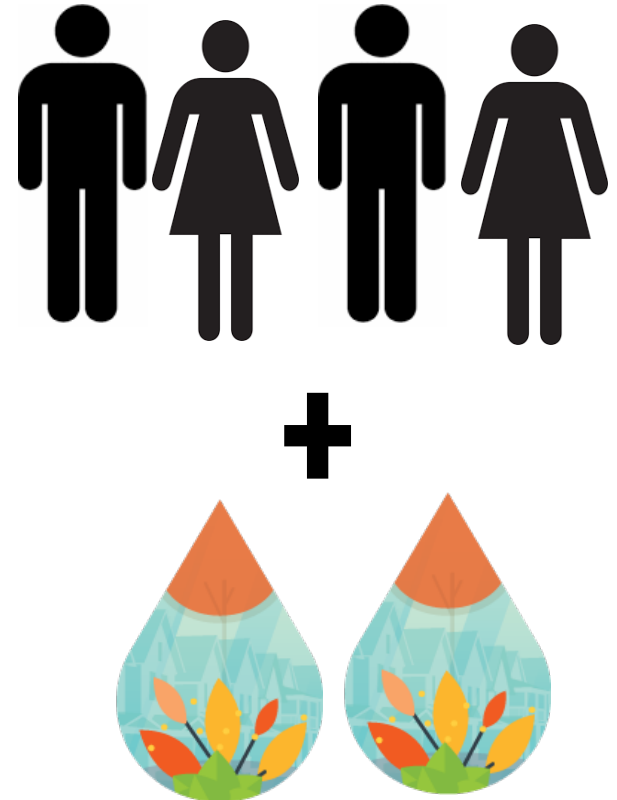
18 CCF = 13,464 Gallons

Prices shown net 10% on time payment discount



# Residential Water & Sewer Quarterly Bill Impact **Scenario 3**

- 5/8" Meter
- Four person household with moderate outdoor use – use 36 CCF per Quarter



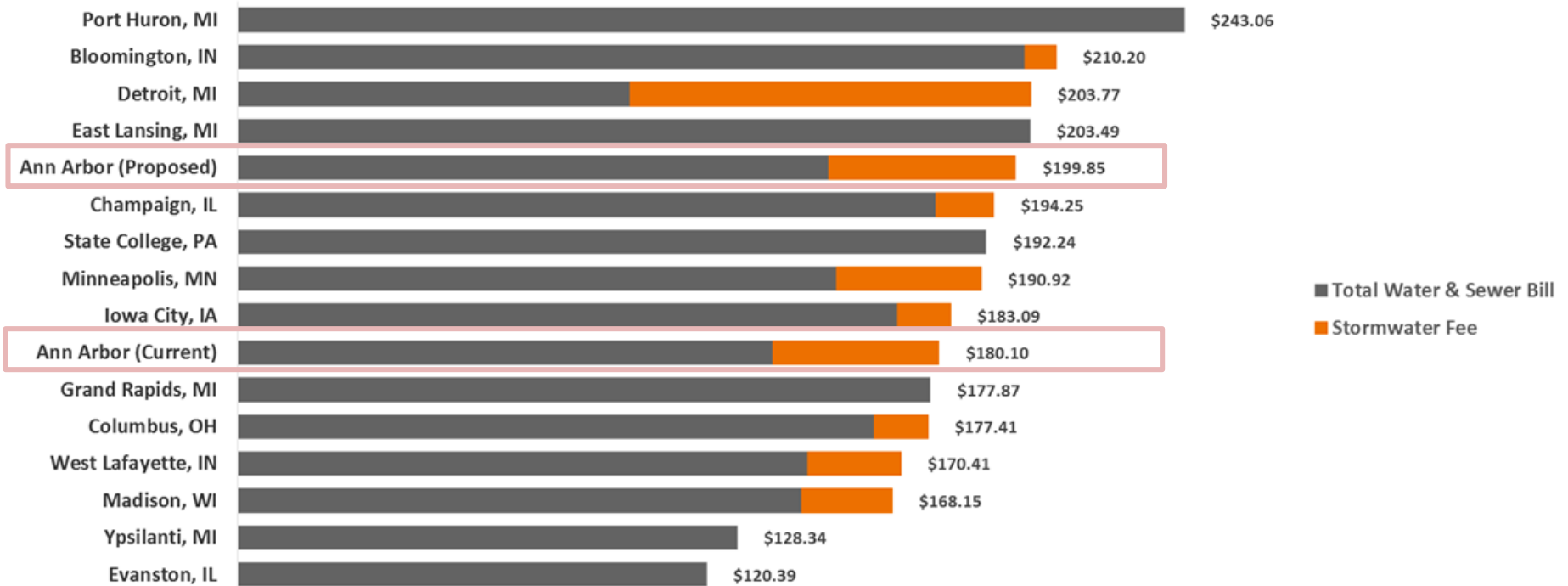
Prices shown net 10% on time payment discount





# Comparison of Residential Water & Sewer Bills

Total Quarterly Residential Water, Sewer, and Stormwater Bill at 18 CCF



Stormwater fees displayed for communities having a stand alone stormwater utility at the average residential rate. Survey does not consider level of service differences. Bill shown net 10% on-time payment discount



# Non-Residential Select Water & Sewer Quarterly Bill Impacts

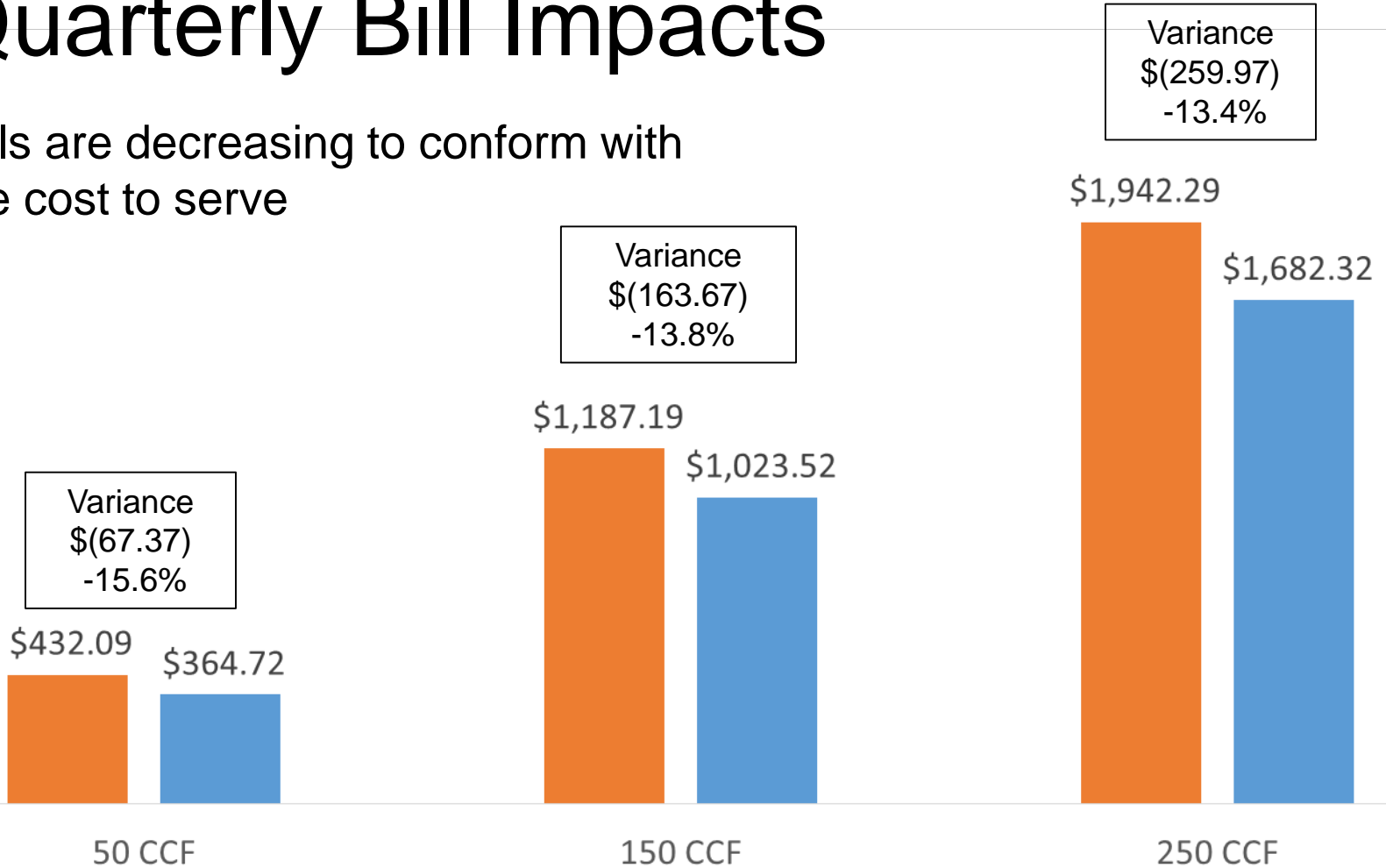
Type	Meter	Current	Proposed	Change \$	Change %
Grocery Store	2"	\$ 8,002	\$ 7,573	\$ (429)	-5%
Deli	1.5", 1.5"	\$ 4,747	\$ 4,434	\$ (313)	-7%
Pub	1.5"	\$ 3,883	\$ 3,667	\$ (216)	-6%
Brewery	1", 5/8"	\$ 2,660	\$ 2,550	\$ (110)	-4%
Teen Center	5/8"	\$ 166	\$ 171	\$ 5	3%
Specialty Store	5/8"	\$ 288	\$ 288	\$ -	0%
Hotel	2",3"	\$ 24,319	\$ 23,031	\$ (1,288)	-5%
Professional Office	2"	\$ 1,613	\$ 1,436	\$ (178)	-11%
Dry Cleaners	5/8"	\$ 430	\$ 441	\$ 11	3%
Hospital	6"	\$ 29,143	\$ 27,672	\$ (1,471)	-5%

Bill shown net 10% on time payment discount



# Multifamily Water & Sewer Quarterly Bill Impacts

Bills are decreasing to conform with the cost to serve



Assumed 1" meter

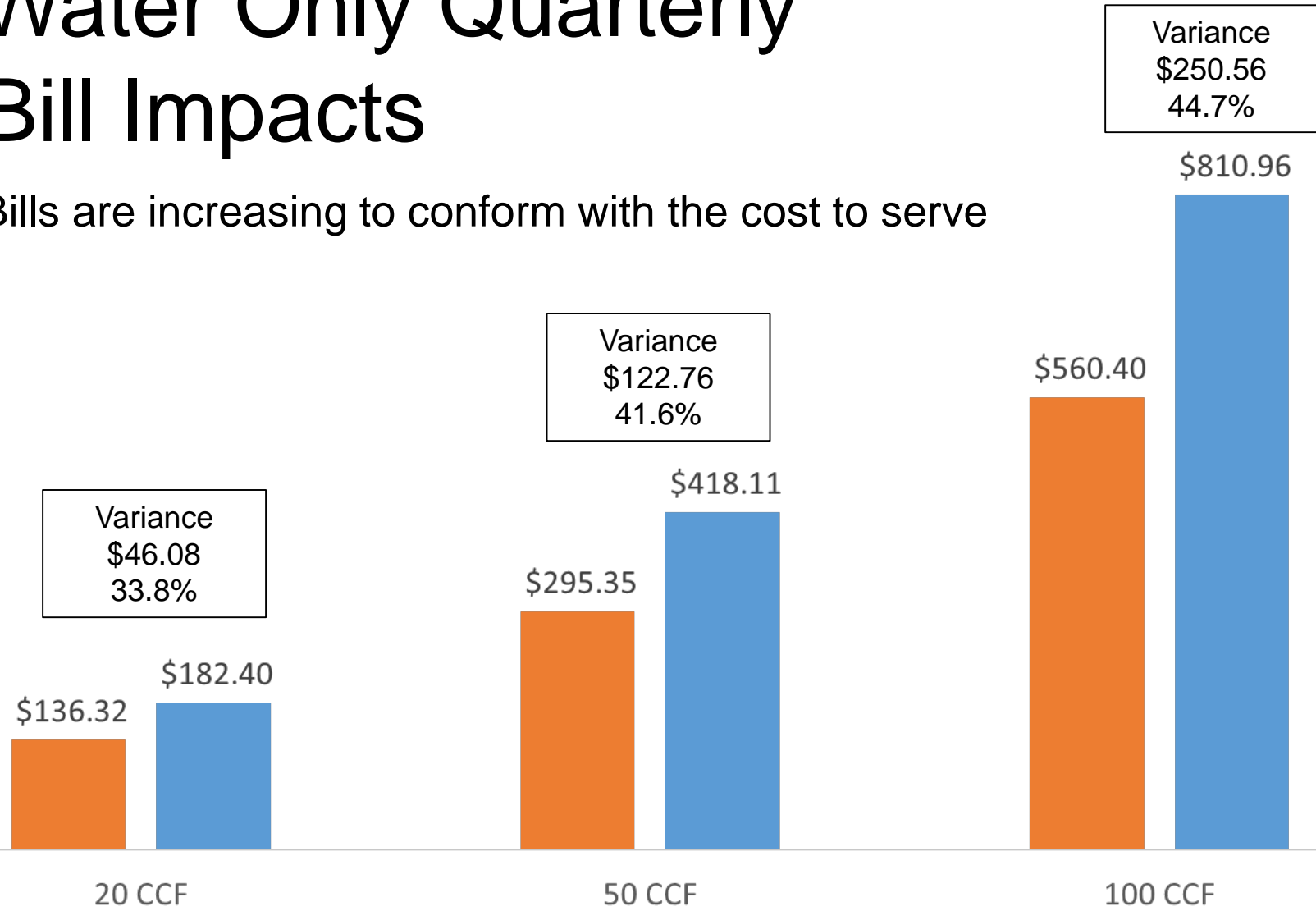
Bill shown net 10% on time payment discount

Current Calculated



# Water Only Quarterly Bill Impacts

Bills are increasing to conform with the cost to serve



Assumed 1" meter  
Bill shown net 10% on time payment discount

Current Calculated



# Affordability Analysis

## Legal framework:

Can customer charges be use to fund programs to address affordability challenges?

- 🌱 Charges must be associated with the cost to serve. Funding for programs to provide assistance to customers with affordability challenges must be funded through not-rate revenue.

## What was done during the study:

- 💧 Identify neighborhoods and customers with affordability challenges
- 💧 Understand their key customer characteristics
  - 💧 *Water Demand profile*
  - 💧 *Account types*
- 💧 Incorporated that understanding into cost of service and rate design





BEYOND  
the STUDY

# Affordability Recommendations

- 💧 Implement the new multi-family rate which will indirectly impact families with affordability challenges
- 💧 Continue to work with community to meet the needs of those with affordability challenges through:
  - 💧 Proactive communications through Customer Service
  - 💧 Partnership with the Community Partners (Barrier Busters/County) to avert crisis needs
  - 💧 Quantify those who face affordability challenges to seek funding from non-rate revenue



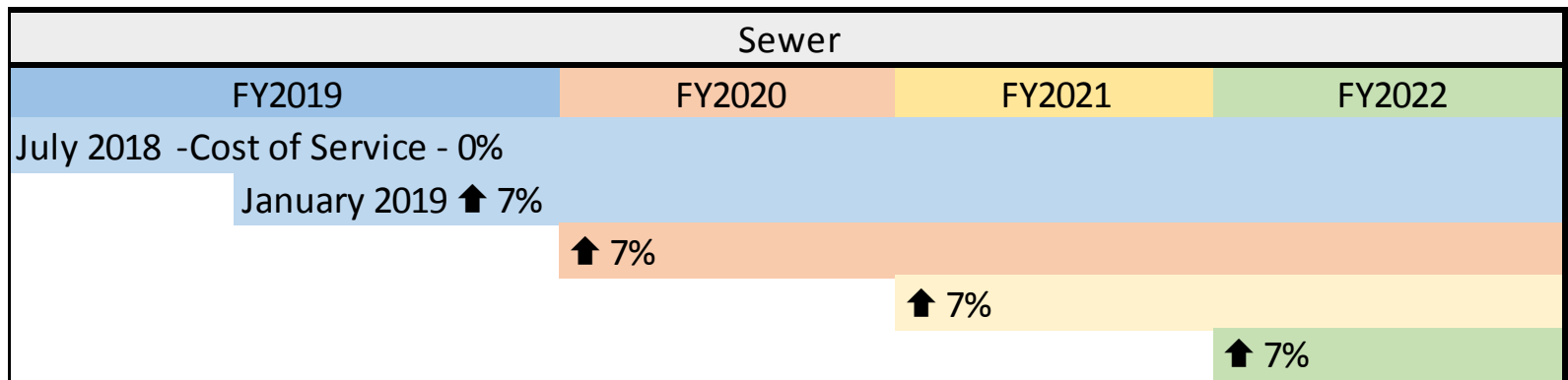
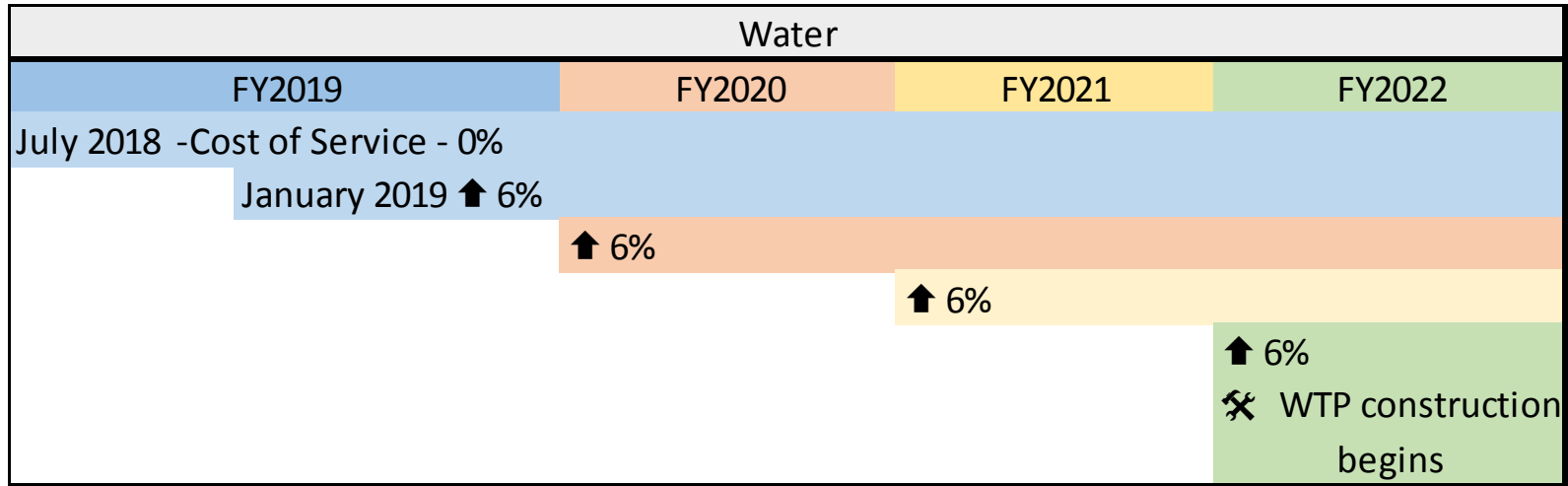
# Study Implementation

- If approved, re-classify multi-family accounts
  - Estimated 2,500 accounts will be reclassified
- Communication to all residents about rate structure changes





# Water & Sewer Forecasted Revenue Requirements



# Stormwater

Implementing the level of service changes based 2017 approved recommendations

	FY 2018	FY 2019	FY 2020	FY 2021
Tree Pruning	\$ 700,000	\$ 700,000	\$ 700,000	\$ 700,000
Public Engagement	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000
Best Mgmt/Green Infra.		\$ 400,000	\$ 400,000	\$ 400,000
Public Works Maint.		\$ 150,000	\$ 150,000	\$ 150,000
System Repair & R&R			\$ 920,000	\$ 920,000
Sewer Inspection & Cleaning				\$ 650,000
Level of Service				
Annual Increase	\$ 850,000	\$ 550,000	\$ 920,000	\$ 650,000
Cumulative Total	\$ 850,000	\$1,400,000	\$2,320,000	\$2,970,000
Rate Increase	28%	14%	13%	11%

# Typical Residential Utility Bill Comparison

2018 Typical Residential Bill	
Water	\$59.17
Sewer	\$93.69
Storm water	\$42.53
<b>Subtotal:</b>	<b>\$195.39</b>
Early Payment Discount	(\$19.54)
<b>Average Quarterly Bill</b>	<b>\$175.85</b>

2019 Typical Residential Bill	
Water	\$59.64
Sewer	\$106.51
Storm water	\$47.93
<b>Subtotal:</b>	<b>\$214.08</b>
Early Payment Discount	(\$21.41)
<b>Average Quarterly Bill</b>	<b>\$192.67</b>

Quarterly Increase	\$16.82
Effective Percentage	9.56%

The typical residential bill is based on 18 CCF per quarter and falls in Tier 2 of the Stormwater Rate Structure

## Council Question:

This is to follow-up on the water and sewer rate re-structuring proposal that was postponed May 21 and is on the agenda for June 18. As I indicated in my comments May 21<sup>st</sup>, the purpose of the postponement was to obtain information and better understand four items:

1. Commercial peaking and tiering
2. The cost justification for residential tiering, particularly the new Tier 4
3. The pros and cons of the East Lansing approach
4. The flexibility the City has under Bolt

Hopefully, staff has been working on information to share with council that fully addresses those four items I raised. Other council members may have other questions or information requests as well.

Regarding **commercial peaking and tiering**, my concern is that we have a re-structuring proposal largely based on the peaking concept (e.g., that it's the peaking that drives costs) and a philosophical objective of incentivizing prudent use of water. And we know that commercial peaking in the summer months is much larger on an absolute basis than residential and larger on a percentage basis as well. Yet, we're eliminating commercial tiers at the very same time we're adding a fourth tier in residential. That seems to me to be internally inconsistent treatment on a primary, fundamental consideration, and not consistent with our objective of incentivizing prudent water use.

The explanations to this point have essentially been that we don't have the data to create tiers. That just doesn't make sense - we have tiers in commercial now based on "peaking factors". With millions of data points, surely it is possible going forward to determine a commercial customer's average or base usage and charge incrementally for peak usage -- we do it now.

I've asked a couple of times now about the nature and cause of this summer commercial peaking because understanding that is essential to understanding the validity of the re-structuring proposal. To this point, each response has been a technical explanation, but no data or information on the peaking itself.

So let me be as clear as I can be this time – please provide the actual data on who and what caused the large commercial peaking in July (vs. February) depicted on slide 9 of the March 12<sup>th</sup> Work Session presentation?

Regarding adding the **fourth residential tier**, can you please provide a schedule that demonstrates the costs for a gallon of water in Tier 1 is 7 times the cost of a gallon in Tier 1. I appreciate your response to this same question on May 21<sup>st</sup>, but it does not really answer the question. I'm looking for a side-by-side comparison of residential Tier 1 cost of service for one gallon (or CCF) to residential Tier 4 cost of service for one gallon (or CCF).

Also, in the May 18 response to my questions and requests for data, it was indicated that “Stantec is in the process of completing a detailed report inclusive of all details, steps and allocation metrics” and that, “once finalized with staff, the report will be available as a public document.” Perhaps I missed it, but has that report been completed/published? If not, will it be finished prior to June 18<sup>th</sup>? This report would be helpful in answering questions with regard to the cost allocations processes (from line item to function and then to customers).

Items 3 and 4 on my “need to understand better” list (**Pros and Cons of East Lansing approach and Flexibility under Bolt**) are pretty self-explanatory. Discovering that East Lansing’s pricing structure was at the opposite end of the spectrum from Ann Arbor’s approach was surprising and enlightening. It also demonstrated there is not just one legally permissible (or appropriate) structure.

East Lansing charges everyone the exact same price for a gallon of water – no customer classes with different rates and doesn’t matter what the customer’s volume is – one gallon costs everyone the same. I believe fully understanding the pros and cons of the East Lansing approach (vis-à-vis Ann Arbor’s proposed approach) and understanding the flexibility Ann Arbor has under Bolt are both important considerations.

Finally, there are two benchmarking-related questions I forgot to ask previously that I would appreciate answers to before second reading. First, in the benchmarking you’ve conducted of other cities’ (in Michigan or other states) rate structures, which cities identify multi-family as a separate customer class? Also, which cities have four (or more) residential tiers and which cities have a cost per gallon difference of 7 times (or more) between the lowest and highest tiers?

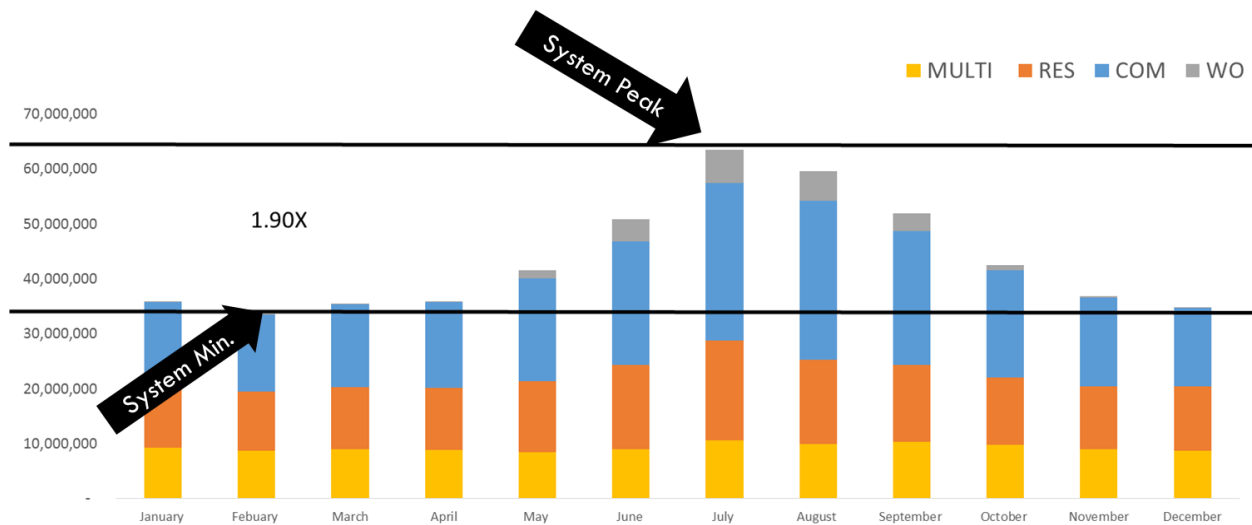
Thank you. This is a significant decision with substantial financial impacts on residents so before acting, it’s essential we have a full understanding of the structure, its rationale, and the alternatives.

## Staff Response

### 1. COMMERCIAL PEAKING & TIERS

*Summary: Instead of tiered rates for commercial customers, all peaking costs for commercial (non-residential) customers are incorporated into the price. Appropriate sizing of different tiers cannot be established because of the wide range of types of customers in the non-residential class, i.e. everyone from Dairy Queen to the Michigan Stadium.*

As indicated in the cost of service study, the cost of serving the peak demand for non-residential customers is recommended to be recovered as component of the uniform rate per unit of water that is specific to the non-residential customer class. While the City presently has three different rate categories for non-residential users based on their peaking factors, about 98% of all non-residential customers are in the first category, effectively rendering the current structure a uniform rate for the all non-residential customers. The proposed uniform rate for non-residential customers both continues what is in effect now, and follows what is the most common industry practice for non-residential customers.



Within the commercial (non-residential) class there is a wide variety of business types with different levels of water usage requirements and metering configurations. Therefore, charging a tiered volumetric rate for this customer class as a whole would not be appropriate. For example, a small office downtown may use about 20 CCF throughout the year, and a restaurant with the same square footage may use 100 CCF throughout the year. Setting a higher rate at 50 CCF or more, would not be proper for the restaurant for its use above 50 CCFs because their usage is constant throughout the year and the cost to serve above 50 CCF is the same as the cost to serve for the first 50 CCF. The restaurant is not contributing to the costs for the peak use of the system by non-residential customers. In summary, because non-residential customers have dissimilar demand drivers, a flat uniform rate is more appropriate in the absence of the data/resources to establish appropriate tier sizing.

Concerns have been raised about limitations of the uniform rate to recognize differences in peaking behaviors within the non-residential class. An example was given of a non-residential customer using small amounts of water that “peaked” the system more in the summer months, as compared to another customer that used large amounts of water that was more evenly distributed throughout the year. To consider whether a different rate structure might be possible for the class of non-residential customers would require a different, detailed examination of the data by a consultant, and most likely would require changes to the City’s meter reading practices and to the City’s billing software, in addition to additional administrative burdens on staff.

The predominant industry accepted rate structure for non-residential accounts is a uniform rate structure, as recommended in the cost of service study

## 2. THE COST JUSTIFICATION FOR RESIDENTIAL TIERING, PARTICULARLY THE NEW TIER 4

*Summary: The pricing for each tier reflects the proportion of the average day, maximum day, and peak hour costs for the demands in the tier. The greater the costs to serve peak usage, the greater the rates needed to cover those costs.*

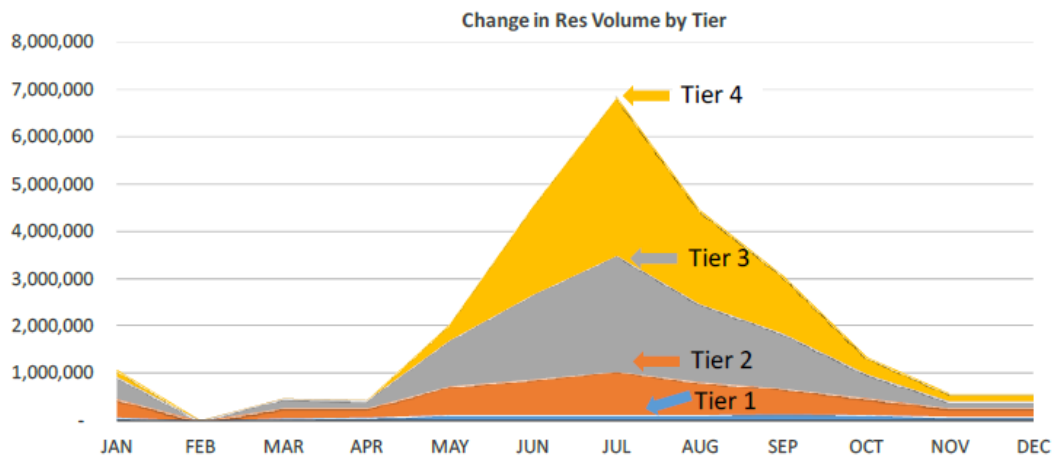
The initial tier at 9 CCF per quarter is sufficient to provide an allowance for typical indoor domestic use of 36.7 gallons per capita per day (per the Residential End Uses of Water, Version 2, published in April of 2016 by the Water Research Foundation), and an assumed 2.0 persons per household. Incorporating readily available industry data relative to residential per person indoor water use into the tier setting

process enhances the ability of the tier structure to reflect current usage profiles. The next tier spans from 9 to 18 CCF per quarter, providing an additional allowance for the indoor domestic use of larger families (which may in some cases also represent modest amounts of outdoor use by smaller families).

The next tier (18 to 36 CCF quarterly) would accommodate reasonable amounts of discretionary irrigation for typical properties, based on a GIS analysis of typical residential lot sizes and irrigated area in the City. The existing top tier would then be revised to include all usage over 36 CCF quarterly. Based upon FY 2016 billing data, less than 10% of all residential bills issued have usage over 36 CCF per quarter.

The rate structure analysis used the cost of service analysis to calculate the unit cost/rate for each tier. Connecting the cost of service to the volumes and seasonal demand patterns present within each tier creates a strong, proportional, and transparent relationship between the use of water and the cost of service. The following graphic displays the relative contribution of peak demands from the Residential class for each proposed tier.

**Graphic 1: Change in Residential Volume by Tier (by total CCFs for residential customers)**



As illustrated in the above graphic, the volumes in each tier are quite different in their contributions to peak demands, and generally reflect the usage profile employed to size each tier.

The pricing for each tier reflected the allocated proportion of the average day, maximum day, and peak hour costs for the demands in each respective tier as shown in Table 1 below. Max day and peak hour volumes are the proportional change in volume from February (system min) to July (system peak).

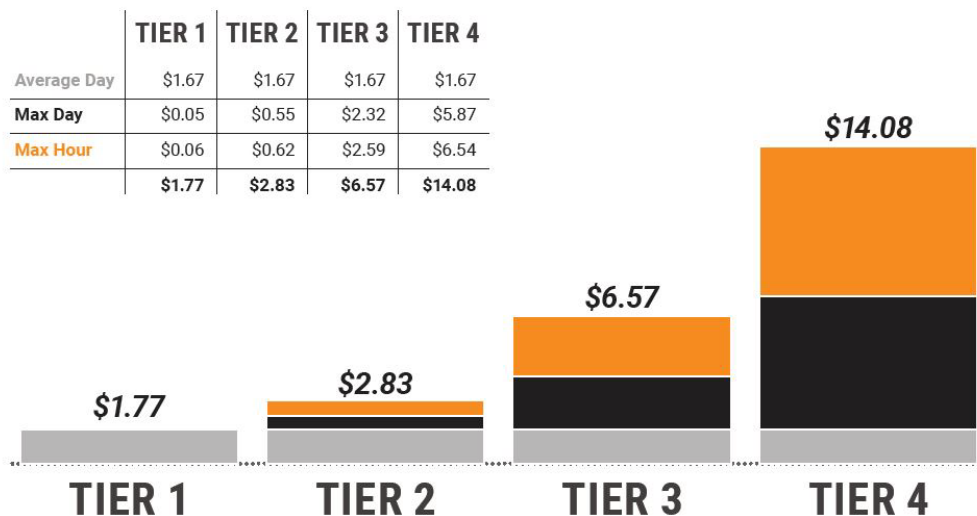
**Table 1: Proportional Allocation of Costs by Units of Service and System Costs**

Units of Service by Tier CCF	Average Day	Max Day	Peak Hour
<b>Tier 1</b>	674,229	126,100	126,100
<b>Tier 2</b>	438,039	902,300	902,300
<b>Tier 3</b>	285,236	2,464,900	2,464,900
<b>Tier 4</b>	152,238	3,328,400	3,328,400

System Cost by Tier	Average Day	Max Day	Peak Hour
<b>Tier 1</b>	\$1,010,380	\$30,473	\$33,963
<b>Tier 2</b>	\$656,432	\$218,045	\$243,021
<b>Tier 3</b>	\$427,447	\$595,653	\$663,883
<b>Tier 4</b>	\$228,140	\$804,322	\$896,453

As can be seen from the graphic below, tiers 3 and 4 have a larger allocation of system costs associated with serving maximum day and peak hour demands due to their significantly great contribution to the peak demands placed on the system.

**Graphic 2: Tier Pricing based on Average Day, Max Day and Max Hour Costs**





### 3. THE PROS AND CONS OF THE EAST LANSING APPROACH

#### 4. FLEXIBILITY UNDER BOLT

We understand East Lansing does not have the type of data regarding use by individual customers that Ann Arbor has. Absent that data, East Lansing cannot do the kind of analysis Ann Arbor did to identify the patterns of customer demands on their water treatment and distribution system and the costs to serve those demands. Absent that data, a uniform rate for all customers and all usage levels may have been the best option for East Lansing. Because of the volume of data Ann Arbor has, and the details in that data regarding customer water usage and the costs to serve those uses, the type of uniform rate used by East Lansing is not an option for Ann Arbor. The differences between East Lansing and Ann Arbor are not the result of “flexibility” under Bolt. For Ann Arbor to impose a uniform rate on all customers at all levels of use when different categories of customers have been identified based on the usage patterns of customers within each category and the costs to provide service to them would be contrary to the requirement that rates be based on the cost to provide service

#### 5. ADDITIONAL QUESTIONS:

QUESTION: Also, in the May 18 response to my questions and requests for data, it was indicated that “Stantec is in the process of completing a detailed report inclusive of all details, steps and allocation metrics” and that, “once finalized with staff, the report will be available as a public document.” Perhaps I missed it, but has that report been completed/published? If not, will it be finished prior to June 18<sup>th</sup>? This report would be helpful in answering questions with regard to the cost allocations processes (from line item to function and then to customers).

RESPONSE: We have a final draft of the report that we will post on Monday. After the final edits, the final report will be posted.

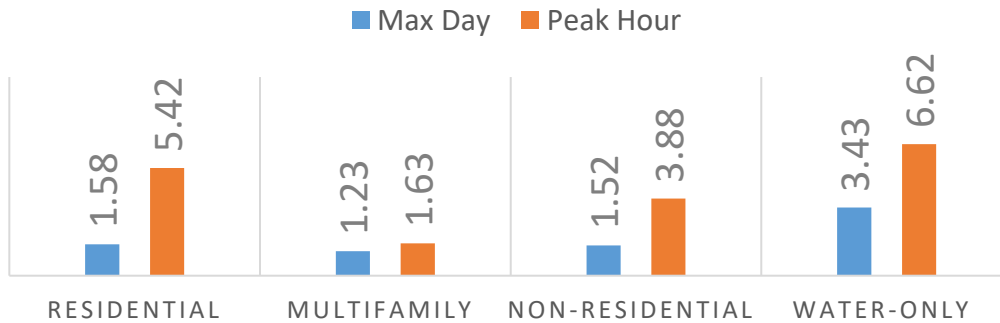
QUESTION: So let me be as clear as I can be this time – please provide the actual data on who and what caused the large commercial peaking in July (vs. February) depicted on slide 9 of the March 12<sup>th</sup> Work Session presentation?

RESPONSE: Slide 9 summarized all billed volume for 4,000+ non-residential customers for a year-long period. To see how each of the 4000+ individual non-residential customers contributed to the totals for the non-residential class as a whole, the daily data for 365 days for each of those 4000+ customers would need to be generated, and could then be reviewed to compare usage in February and July, or in any other months.

QUESTION: Regarding **commercial peaking and tiering**, my concern is that we have a restructuring proposal largely based on the peaking concept (e.g., that it’s the peaking that drives costs) and a philosophical objective of incentivizing prudent use of water. And we know that commercial peaking in the summer months is much larger on an absolute basis than residential and larger on a percentage basis as well. Yet, we’re eliminating commercial tiers at the very same time we’re adding a fourth tier in residential. That seems to me to be internally inconsistent treatment on a primary, fundamental consideration, and not consistent with our objective of incentivizing prudent water use.

RESPONSE: On a percentage basis, non-residential peaking is not larger than residential peaking. On a percentage basis, compared to average day use, max day and peak hour factors are shown below. Residential customers have higher hourly and maximum day peaks as a percentage basis. Peaking is based on the collection of data for all accounts within each customer category.

Tiering non-residential rates would have no impact on residential rates.



QUESTION: Finally, there are two benchmarking-related questions I forgot to ask previously that I would appreciate answers to before second reading. First, in the benchmarking you've conducted of other cities' (in Michigan or other states) rate structures, which cities identify multi-family as a separate customer class? Also, which cities have four (or more) residential tiers and which cities have a cost per gallon difference of 7 times (or more) between the lowest and highest tiers?

RESPONSE: Benchmarking for the City of Ann Arbor is not always the most effective way to evaluate the system because the City has very mature automatic meter infrastructure and in recent history has had a progressive view on rate-making and data-driven decision-making. The cities were not surveyed for the infrastructure, source water, or other characteristics.

That being said, of the benchmarked cities only Madison, Wisconsin has both an inclining block rate structure and a multi-family rate. Their structure is not as robust as Ann Arbor's because they implemented it in conjunction with converting to AMI; their structure will likely be refined as time goes on.



City of Ann Arbor, MI

# Water and Sewer Cost of Service Study Final Report

June 27, 2018





June 26, 2018

Ms. Lynne Chaimowitz  
Budget and Finance Supervisor  
City of Ann Arbor  
301 E. Huron Street  
Ann Arbor, Michigan 48104

Re: Water and Sewer Cost of  
Service Study – Final Report

Dear Ms. Chaimowitz,

Stantec Financial Services is pleased to present this Final Report for the Water and Sewer Cost of Service Study (Study) that we performed for City of Ann Arbor, Michigan (City). We appreciate the fine assistance provided by you and all of the members of the City staff and community stakeholders who participated in the 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](mailto:andrew.burnham@stantec.com). We appreciate the opportunity to be of service to the City, and look forward to the possibility of doing so again in the near future

Sincerely,

A handwritten signature in blue ink, appearing to read "A. J. Burnham".

Andrew J. Burnham  
Vice President

777 S. Harbour Island Blvd., Suite 600  
Tampa, Florida 33602  
(813) 204-3331  
[andrew.burnham@stantec.com](mailto:andrew.burnham@stantec.com)

Enclosure

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# 1. EXECUTIVE SUMMARY

## 1.1 INTRODUCTION

This Executive Summary presents an overview of the results of the Cost of Service Study (Study) that was conducted for the water and sewer systems (collectively referred to as the “Utility” hereafter) of the City of Ann Arbor, Michigan (City) by Stantec Consulting Services Inc.

## 1.2 OBJECTIVES

The principal objectives or components of the Study were as follows:

**Water and Sewer Revenue Sufficiency Analysis** - Develop and populate multi-year forecasting models for the City’s water and sewer systems, respectively, that will determine the level of annual revenue required to satisfy each system’s projected annual operating, debt service, and capital cost requirements while maintaining adequate reserve levels.

**Cost of Service Analysis** - Complete a thorough cost allocation process to reflect the appropriate distribution of system costs to system functions and ultimately rate classes based upon observed data, such as average day, maximum day, and peak hour demands to ensure a fair and equitable distribution of costs by rate classification.

**Rate Calculation** - Review the Utility’s existing rate structures and develop modifications, as appropriate, to ensure that its rates reflect accepted industry practice and an equitable distribution of costs, while enhancing transparency and adherence to cost-based pricing principals.

## 1.3 PUBLIC ENGAGEMENT

In addition to comprehensively addressing the technical aspects of conducting the Study, a robust public engagement effort was conducted. Public engagement was critical to the Study as it served to ensure the community’s needs, concerns, and objectives were being addressed, while enhancing transparency and understanding of the rate setting process for the City’s water and sewer systems. Public engagement was organized into several distinct steps, including the formation of an Advisory Group that met several times during the course of the Study to review the analysis and provide feedback, conducting focus groups, surveying the community, and providing updates on the A2gov.org website, email, and postings.

## 1.4 REVENUE SUFFICIENCY

This component of the analysis evaluated the sufficiency of the Utility’s water and sewer revenues to meet all of its current and projected financial requirements over a ten-year projection period for the water and sewer systems, and determined the level of any rate revenue increases necessary in each year of

the projection period to provide sufficient revenues to fund all identified cost requirements. With City staff and the Advisory Group, the base data and assumptions of the analysis, as well as several alternative scenarios for the water and sewer utilities, respectively, were reviewed. Through this process, the recommended financial management plan and associated plan of annual water and sewer rate revenue increases presented herein were developed to address the projected cost requirements of the Utility.

The recommended financial management plan and corresponding plan of water and sewer rate revenue adjustments are based upon the revenue and expense information, beginning balances, and assumptions as described in Section 3 of the report. Appendices A1 and A2 of this report includes detailed schedules presenting all components of the financial management plan developed for the Utility. Additionally the City has been provided the two financial models to allow for future updates to the plan as needed.

The recommended five-year rate revenue adjustment plan is presented in the table below. It is important to note that the FY 2019 revenue increases are intended for mid-fiscal year (1/1/2019) implementation, while all cost of service-based adjustments are intended for implementation effective on 7/1/2018.

### E1 Recommended Plan of Water & Sewer Rate Revenue Adjustments

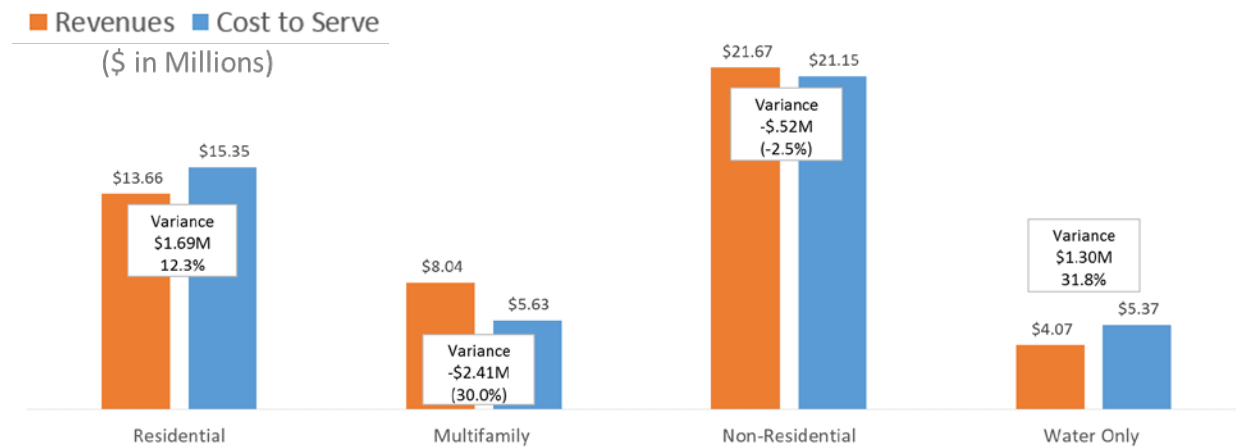
	<u>FY 19</u>	<u>FY 20</u>	<u>FY 21</u>	<u>FY 22</u>	<u>FY 23</u>
<b>Effective Date</b>	1/1/19	7/1/19	7/1/20	7/1/21	7/1/22
<b>Water</b>	6.00%	6.00%	6.00%	6.00%	6.00%
<b>Sewer</b>	7.00%	7.00%	7.00%	7.00%	7.00%

## 1.5 COST OF SERVICE

A cost of service analysis was performed to identify and allocate the cost of providing water and sewer services to the Utility's respective rate classes. The cost of service analysis fundamentally sought to assign the cost of the respective components for each system proportionality to rate classes based upon their service characteristics and usage of the system. In doing so, this analysis created a strong relationship or nexus between the users of system and the cost of providing service to each rate class. Importantly, the legal environment within the State of Michigan dictates that municipal service providers construct rates that adhere strictly to proportional usage and cost of service principles. Communities that chose to deviate from these legal guidelines do so at the risk of legal challenge. As such, and in recognition of the environment that the Utility operates within, every effort has been made to enhance the defensibility of its rates, promote transparency, and ensure that its rates are fair, equitable, and recover the cost requirements of the Utility. The following graphic displays the comparison between the current cost to serve each rate class and the current revenue remittance by those same rate classes. From the graphic it is evident that the Residential and Water Only rate classes are being charged less than the cost to serve them, while the rates being applied to Multifamily and Non-Residential (i.e. commercial) customers are recovering more than the identified cost to serve those classes.



## E2 Combined water and sewer cost of service results



## 1.6 RATE CALCULATION

Stantec examined the Utility's current water and sewer rates and developed recommended rate structure modifications that i) fairly and equitably recover the Utility's current cost of service and revenue requirements from each rate or customer class, ii) conform to accepted local and national industry practices, iii) ensure fiscal stability and reasonable recovery of fixed costs, iv) minimize administrative burden and enhance the ability to be easily understood by residents and customers.

Common industry practice is to develop a two-part rate structure comprised of both fixed and variable charges. Generally accepted practice recovers a portion of system costs in a fixed charge, recognizing that utilities have substantial cost that are customer-specific, such as meter replacement, public fire protection, and customer service costs that are incurred year-round. Utilities incur these costs regardless of the level of customer water use. Failure to establish a proper level of fixed cost recovery subjects the Utility to revenue volatility in certain conditions, such as abnormal weather or economic events.

The Utility presently has a fixed quarterly charge based upon meter size that is applied for both water and sewer service, respectively. It is recommended that the Utility update its fixed charges to reflect the current cost for meter replacement, public fire protection, and administrative activities. Specifically, the fixed charge should recover administrative costs (such as customer service, billing and collection, meter reading, etc.) equally per meter, meter replacement cost based on the specific cost and useful life of each meter size, and public fire protection costs based upon meter size.

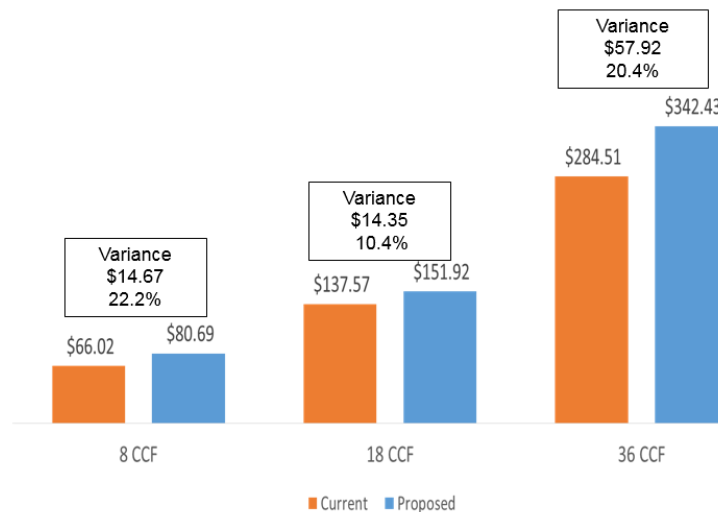
As it relates to the Utility's usage or metered volume-based rates, it is recommended that:

1. An a new tier is added to the inclining block water rate structure of the Residential class, and adjust the volume included in all tiers to reflect current usage profiles and local data (see Section 2).
2. The pricing of each tier of the Residential inclining block structure is adjusted to comport with the cost of service findings and enhance intra-class equity.

3. A uniform rate structure is applied to all metered water use for all other rate classes (Multifamily, Non-Residential, and Water Only) based upon the revenue requirement from the cost of service analysis for each respective rate class to be recovered in usage-based rates divided by total observed water volume for each rate class.
4. The Utility continues to apply a single usage or metered volume-based rate for sewer service to all customer or rate classes based upon the portion of the revenue requirement to be recovered in usage-based rates divided by total billed sewer volume from the test-year.

The following graphics present the quarterly water and sewer bill impacts to customers at various levels of water use resulting from the recommended rates intended for implementation on 7/1/18. The first graphic displays the quarterly bill impact to Residential customers at 8, 18, and 36 hundred cubic feet (CCF) per quarter, and demonstrates that single family customers of the City would see an increase, mainly associated with a cost of service adjustment to bring revenue collection from the Residential class into alignment with the current cost of providing service. Additionally Non-Residential, Multifamily, and Water Only billing impacts have been provided to highlight the changes for those rate classifications.

### E3 Residential Customer Quarterly Bill Impact for Low, Average, and High Volume Users



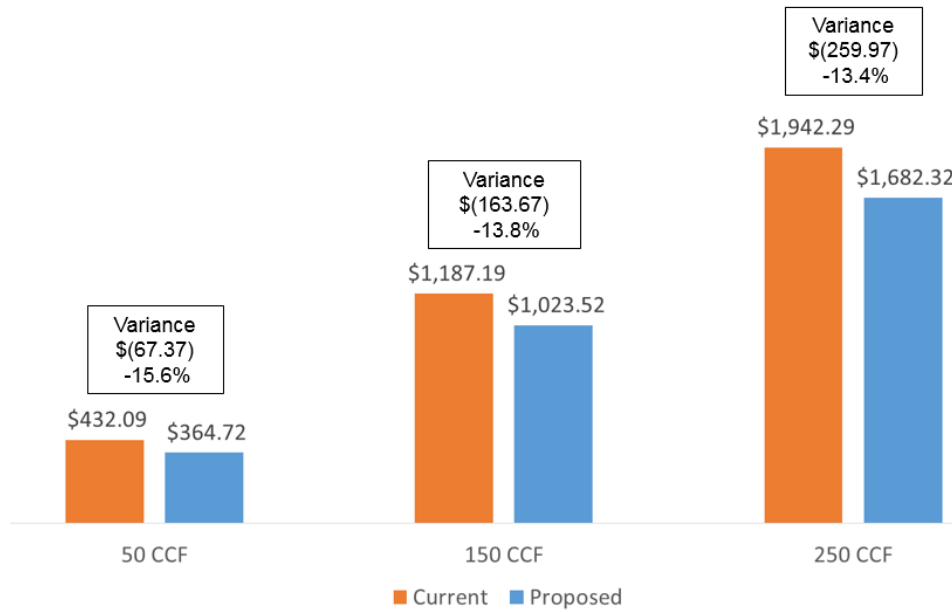
Bills shown net of 10% on time payment discount

### E4 Select Non-Residential Customer Quarterly Bill Impact

Type	Meter	Current	Proposed	Change \$	Change %
Grocery Store	2"	\$ 8,002	\$ 7,573	\$ (429)	-5%
Deli	1.5", 1.5"	\$ 4,747	\$ 4,434	\$ (313)	-7%
Pub	1.5"	\$ 3,883	\$ 3,667	\$ (216)	-6%
Brewery	1", 5/8"	\$ 2,660	\$ 2,550	\$ (110)	-4%
Teen Center	5/8"	\$ 166	\$ 171	\$ 5	3%
Specialty Store	5/8"	\$ 288	\$ 288	\$ -	0%
Hotel	2", 3"	\$ 24,319	\$ 23,031	\$ (1,288)	-5%
Professional Office	2"	\$ 1,613	\$ 1,436	\$ (178)	-11%
Dry Cleaners	5/8"	\$ 430	\$ 441	\$ 11	3%
Hospital	6"	\$ 29,143	\$ 27,672	\$ (1,471)	-5%

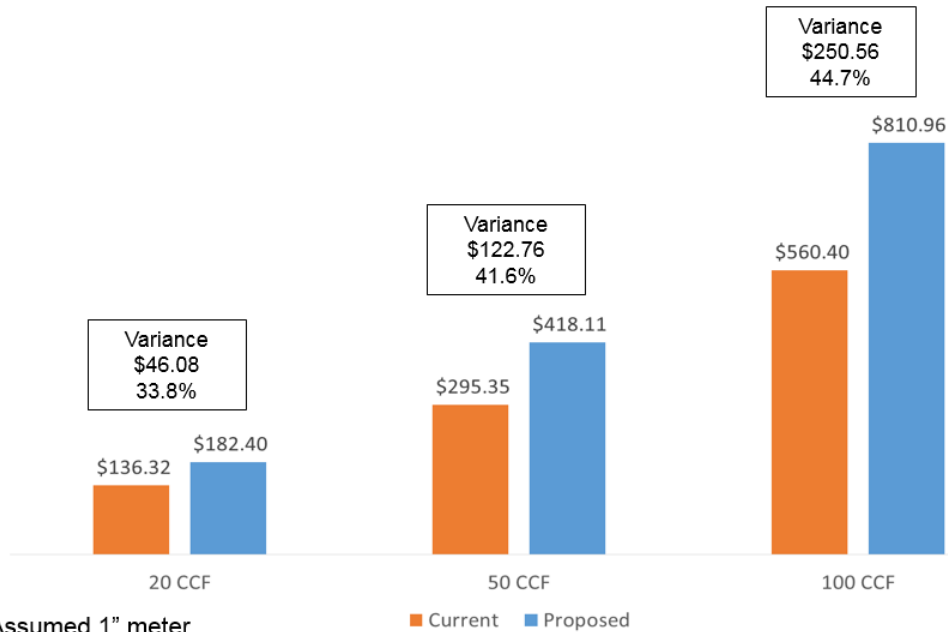
Bills shown net of 10% on time payment discount

### E5 Multifamily Customer Quarterly Bill Impact



Assumed 1" meter  
 Bill shown net 10% on time payment discount

### E6 Water Only Customer Quarterly Bill Impact



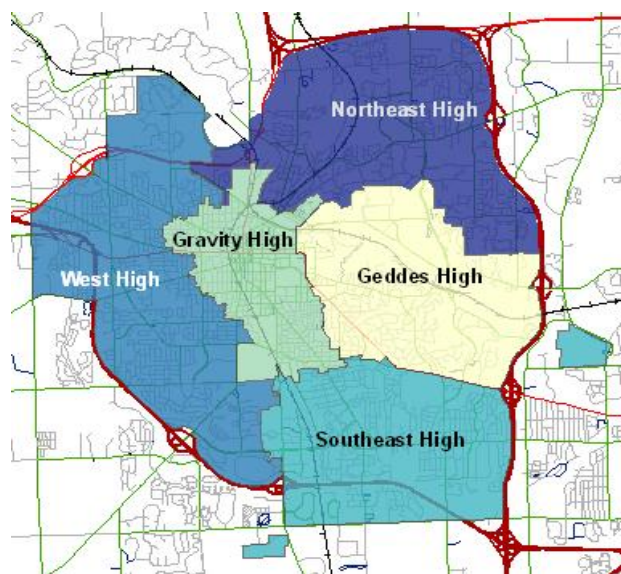
Assumed 1" meter  
 Bill shown net 10% on time payment discount

## 2. INTRODUCTION

Stantec Consulting Service Inc. (Stantec) has conducted a comprehensive Cost of Service Study (Study) for the water and sewer systems (collectively referred to as the “Utility” hereafter) of the City of Ann Arbor (City). This report presents the approach, methodologies, source data, assumptions, as well as the findings and recommendations of the Study.

### 2.1 BACKGROUND

The City owns and operates a water utility system that supplies approximately 125,000 people with an average daily water volume of 14 million gallons per day (14 MGD). The City’s water supply is sourced mainly from the Huron River (85%) and then mixed with ground water from wells (15%). Once treated, the City distributes the water to its customers through five pressure districts, four remote pump stations, and two elevated storage tanks. The following map displays the current water service area for the City.



The City owns and operates two wastewater treatment facilities with a combined treatment capacity of 29.5 MGD, and a collection system consisting of both gravity sewers and force main sewers to collect and deliver wastewater to the plants for treatment and disposal. Included in the wastewater collection system are 360 miles of sewer mains, 10,300 manholes, and 8 sewage lift stations.

The City completed its last cost of service study in 2003 (about 15 years ago). In 2016, the City issued a request for proposals to retain a consultant to perform a comprehensive study of the Utility’s revenue sufficiency, cost of service, and rate structure, while engaging in a robust public engagement effort. Stantec was ultimately selected to conduct the study, the results of which are included herein. The intent of the update was to utilize most current industry practices, best available data, and reflect changing legal requirements to establish fair and equitable rates.

## 2.2 OBJECTIVES

The principal objectives or components of the Study are as follows:

**Water and Sewer Revenue Sufficiency Analysis** - Develop and populate multi-year forecasting models for the City's water and sewer systems, respectively, that will determine the level of annual revenue required to satisfy each system's projected annual operating, debt service, and capital cost requirements while maintaining adequate reserve levels.

**Cost of Service Analysis** - Complete a thorough cost allocation process to reflect the appropriate distribution of system costs to system functions and ultimately rate classes based on observed data, such as average day, maximum day, and peak hour demands to ensure a fair and equitable distribution of costs by rate classification.

**Rate Calculation** - Review the Utility's existing rate structures and develop modifications, as appropriate, to ensure that its rates reflect accepted industry practice and the equitable distribution of costs, while enhancing transparency and adherence to cost-based pricing principals.

## 2.3 PUBLIC ENGAGEMENT

In addition to comprehensively addressing the technical aspects of conducting the Study, a robust public engagement effort was conducted. Public engagement was critical to the Study as it served to ensure the community's needs, concerns, and objectives were being addressed, while enhancing transparency and understanding of the rate setting process and the City's water and sewer systems. Public engagement was organized in several distinct steps as detailed below:

### Community Engagement Plan:

- Forming a Public Advisory Group
- Conducting Focus Groups
- Surveying the community
- Providing updates on the A2gov.org website, email, and postings

### Advisory Group:

The Advisory Group was formed utilizing the City's Stakeholder Analysis Toolkit. The Advisory Group membership included about 30 rate payers, subject matter experts, City staff, and consultants. The Advisory Group met on five occasions between July and December of 2017, and concluded with a consensus as to the financial plan, cost of service, and rate design recommendations of this Study that was presented to City Council for their consideration. Of note, the Advisory Group repeatedly expressed an interest in exploring affordability and bill assistance programs outside of the context of the Study.

### Focus Groups:

Focus Groups were held on November 6 and 13, 2017 with a total of six stakeholder participants. The meetings were advertised on the A2 website, email lists, and media. Study objectives were reviewed and a series of questions were posed to participants related to: comments, concerns, and issues regarding the City's water and sewer services; methods for receiving information about the water and sewer utilities, thoughts on water quality in the City; thoughts on controlling costs; comments or issues regarding water bills; and comments on infrastructure costs.

Opportunities identified by the stakeholder comments included:

- Plan and execute a multi-media public education campaign on efficient water use, peak usage periods, and irrigation demand management with information on how each affects/impacts water and sewer system costs.
- Develop a water cellular telephone application based on input from a water stakeholder group. Users of the application would monitor their own water usage, receive alerts, and be able to pay bills. Evaluate CityInsights (a water application developed for DWSD customers) or work with U of M students to create one.

### City-wide Survey:

A short 11 question survey regarding the City's water and sewer utility system was posted on the City of Ann Arbor's Website, Social media channels (Facebook, NextDoor, and Twitter), and other communication channels such as Gov. Delivery, a MLive Article, a radio interview, and a press release by the City. The survey was open in May and completed in June of 2017. The survey responses were compiled and shared with the Advisory Group to provide insight into issues and concerns related to the system. A total of 684 responses were received and 95% were identified as City residents.

Key takeaways from the survey:

- The current condition of water and sewer infrastructure was rated as 46% Good or Better, 31% Fair or Poor, and 23% didn't know.
- The quality of the water and sewer services were 31% overall very satisfied, 47% satisfied, 8% dissatisfied or very dissatisfied, and 14% neutral.
- The #1 concern regarding the water and sewer service was having area lakes and rivers safe for swimming, fishing, and other recreation (93%). Following closely in concern was having the ability to drink quality water straight from the tap (90%), and thirdly, having a robust water supply to sustain the Ann Arbor community through a crisis (85%).
- When asked about respondent's viewpoint on water and sewer costs to the household:
  - 73% are willing to pay a higher bill to improve and modernize the systems to ensure safe and reliable water and sewer service.
  - 27% believe their bill is too high and would not be willing to pay more to sustain and modernize the water and sewer system.
- Respondents were asked if they would be willing to pay more for certain aspects of service:

- 81% are willing to pay more to sustain and modernize.
- 79% would pay more to sustain water quality and public health.
- 68% would pay more to improve the natural environment.
- 63% would pay more to assist low income residents.
- Respondents were asked how they receive information about the water and sewer utility:
  - 79% Water/Sewer Bills
  - 56% Mlive.com or other newspapers
  - 48% Waste Watcher
  - 40% Water Matters
  - 30% City Website/Email
  - Others Noted Frequently: Next Door App and Water Plant Tours

## 3. REVENUE SUFFICIENCY

### 3.1 DESCRIPTION

This section presents the financial management plan and corresponding plan of water and sewer rate revenue 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 Appendix A1 and A2 includes detailed supporting schedules for the respective water and sewer financial management plans identified herein. While data for FY 2017 may be referenced, it was not considered to be part of the ten-year projection period of the RSA.

During the RSA, several alternative multi-year financial management plans and corresponding water and sewer rate revenue adjustment plans were reviewed through several interactive work sessions conducted with City staff and the Advisory Group. During these work sessions, the impact of various inputs or assumptions upon key financial indicators were reviewed by use of graphical representations projected on a large viewing screen from interactive computer rate models. In this way, the recommended financial management plan and corresponding plan of annual water and sewer rate revenue adjustments presented in this report were developed that will allow the Utility to fund its cost requirements throughout the projection period and meet its financial performance goals and objectives.

In order to initialize the RSA, the historical and budgeted financial information regarding the operation of the Utility, as well as historical customer counts and billed volume data by rate class was obtained. The Utility also provided its multi-year capital improvement programs (CIP), and current debt service obligations and covenants, or commitments made to lenders, relative to net income coverage requirements, reserves, etc. There were also discussions with City staff regarding other assumptions and policies that would affect the financial performance of the Utility, such as trends in demands, planned developments/customer growth, debt coverage levels, levels of reserves, capital funding sources, earnings on invested funds, escalation rates for operating costs, etc.

All of this information was entered into two separate versions (one for the water and sewer system, respectively) of the financial module of Stantec's Financial Analysis and Management System (FAMS-XL) interactive modeling 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, and determined the level of rate revenue increases necessary in each year of the projection period to satisfy the water and sewer system's respective annual financial requirements.

The financial module of FAMS-XL utilizes all projected available funds in each year of the projection period to pay for capital projects. The module was 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 module 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 modeling system 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:

### 3.2.1 Fund Balances

The FY 2016 Comprehensive Annual Financial Report (CAFR) and supporting trial balance schedules provided by City staff were used to establish the beginning FY 2017 balances as of June 30, 2016 for the City's water and sewer enterprise funds, respectively.

### 3.2.2 Revenues

The revenues utilized in the RSA reflect an evaluation of multiple years of historical results, FY 2017 unaudited results, the FY 2018 Budget, and the FY 2019 Proposed Budget. Revenues consist of rate revenue, capital recovery charges, interest income, and other minor revenue from miscellaneous service charges. Rate revenue is based upon FY 2016 actual results, adjusted annually to reflect assumed customer growth, changes in demand, and rate increases. Miscellaneous service charge revenue projections are based upon the amounts within the FY 2019 Proposed Budget. Interest income was calculated annually based upon projected average fund balances and assumed interest rates, and capital recovery charge revenue was calculated based on the assumed growth in accounts and current fees.

### 3.2.3 Operating Expenditures

The Utility's operating expenditures include all operating and maintenance expenses, transfers into and out of the fund, debt service requirements, and expected capital outlays. The RSA based operating expenditure projections on the individual expense categories and expenses amounts within the FY 2019 Proposed Budget, were adjusted annually thereafter based upon assumed cost escalation factors that were reviewed and validated with City staff (with the exception of annual debt service expenses which reflect the repayment schedules of each existing outstanding bond/loan).

### 3.2.4 Debt Service

The annual debt service schedules for the existing revenue bonds and state revolving loans were provided by City staff and included in the RSA. In addition, the RSA includes estimated debt service as calculated by the financial planning module for future financings necessary to fund portions of the CIP.

### 3.2.5 Capital Improvement Program

City staff provided the multi-year CIP in project level detail by year through FY 2027. 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. Additionally it has been assumed that the CIP will be executed at 100% in each year of the projection period. In total, the CIP (including inflation) from FY 2018 – FY 2027 is approximately \$217.9 million for water and \$62.5M for sewer. A list of projects and costs by year is included on Schedule 4 of Appendix A1 and A2 for the water and sewer systems, respectively.

## 3.3 ASSUMPTIONS

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

### 3.3.1 Cost Escalation

Annual cost escalation factors for the various types of operating and maintenance expenses were developed based upon City staff estimates, a review of historical trends, observed industry experience, and detailed discussions with City staff. The specific escalation factors assumed for the various categories of expenses for each system can be found on Schedule 6 of Appendices A1 and A2.

### 3.3.2 Interest Earnings on Fund Balances

Interest Income is calculated annually based upon projected average fund balances and assumed interest rates of 1.25% in FY 2018, 1.50% in FY 2019, 1.75% in FY 2020 and 2.00% in FY 2021 and each year thereafter.

### 3.3.3 Customer Growth & Volume Forecast

New connection and billed volume 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 City staff regarding the anticipated number of new service connections to the Utility and recent observed trends in water demands.

As part of developing the growth assumptions presented herein, a detailed review of growth by rate or customer class over the past five years was performed. The recent growth trends were discussed with City staff in the context of current development activity to determine reasonable projections of system growth based upon the current local environmental and economic conditions.

The assumed customer growth in the RSA represents an expectation of 1,000 new residential water and sewer equivalent billing units (“EBU”) over FY 2019 and FY 2020. No other growth was included in the analysis. Growth rates are used in determining annual revenue from capital recovery charges, as well as determining the change in billed demands associated with system growth.

The Utility has seen changes in billed water demands from FY 2012 to FY 2016, likely due to economic conditions, weather variability, and increasing water usage efficiency (i.e. a declining usage per account). As part of the analysis, historical trends in per account usage were evaluated and extrapolated at 75% of the average historical change in per account usage for each rate class for the projection period. The following table displays the assumed billable demands by rate class in each year of the projection period resulting from the assumed customer growth and changes in usage per account.

**Table 3-1 Water & Sewer Billed Volume Projections by Rate Class (in CCF)**

Water	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Residential 1	1,450,538	1,432,695	1,443,208	1,453,247	1,435,370	1,417,714	1,400,275	1,383,050	1,366,037	1,349,233	1,332,636
Residential 2	34,488	33,917	33,354	32,801	32,257	31,722	31,196	30,679	30,170	29,670	29,178
Commercial	3,624,236	3,597,287	3,570,539	3,543,989	3,517,637	3,491,481	3,465,520	3,439,751	3,414,175	3,388,788	3,363,590
Water Only	161,021	155,301	149,783	144,461	139,329	134,379	129,604	125,000	120,559	116,275	112,144
Sale for Resale	533,829	533,829	533,829	533,829	533,829	533,829	533,829	533,829	533,829	533,829	533,829
<b>Total CCF</b>	<b>5,270,283</b>	<b>5,219,199</b>	<b>5,196,884</b>	<b>5,174,498</b>	<b>5,124,594</b>	<b>5,075,296</b>	<b>5,026,595</b>	<b>4,978,480</b>	<b>4,930,941</b>	<b>4,883,967</b>	<b>4,837,549</b>
<b>Sewer</b>											
Residential	1,325,999	1,306,156	1,312,193	1,317,757	1,298,037	1,278,613	1,259,479	1,240,631	1,222,066	1,203,778	1,185,764
Commercial	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987	2,754,987
Sale for Resale	829,006	829,006	829,006	829,006	829,006	829,006	829,006	829,006	829,006	829,006	829,006
<b>Total CCF</b>	<b>4,080,986</b>	<b>4,061,143</b>	<b>4,067,180</b>	<b>4,072,744</b>	<b>4,053,024</b>	<b>4,033,600</b>	<b>4,014,466</b>	<b>3,995,618</b>	<b>3,977,053</b>	<b>3,958,765</b>	<b>3,940,751</b>

### 3.3.4 Minimum Reserve Policy

Reserve balances for utility systems 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 at the same time, 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 assure a utility that it 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 that can occur because of natural disasters or unanticipated system failures.

The City currently has established financial policies that include minimum reserve levels for the Utility. Financial policies should articulate how these balances are established, their use, and how to determine the adequacy of the reserve fund balances. Once reserve policies 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 policies 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 reflect existing conditions and issues.

The financial management plans presented in this report assume that the Utility will maintain a minimum reserve that is at least equal to 6 months of annual operations and maintenance (O&M) expenses for the water and sewer funds, respectively. These levels of operating reserves are very consistent with 1) observed 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).

### 3.3.5 Future Borrowing & Capital Funding

To the extent that any new debt is required during the projection period, the RSA assumes revenue bonds (RB) would be utilized with a 30-year term at an interest rate of 3.00% in FY 2017, escalating 25 basis points to 4.00% by FY 2021, and held constant thereafter. Specifically, the RSA reflects the issuance of new debt to fund a portion of the CIP in each year that current resources are inadequate to fully fund the CIP with cash. Full annual debt service requirements have been projected to begin the following year after issuance. It is expected that new borrowing will be required for both the water and sewer systems during the projection period, however, the exact amount, timing, and structure of financing will be determined by City staff based upon then-current needs and conditions.

### 3.3.6 Debt Service and Coverage

One of the most important covenants the Utility makes relative to the issuance of debt is that its annual net revenues will be at least 1.25 times greater than its senior lien debt service requirements.

It is important to note that these revenue covenants (often referred to as debt service coverage requirements) represent the Utility's minimum requirements. Should the Utility be unable to meet these requirements, it could be found in technical default. This would result in the Utility facing a potential downgrade in its credit rating, which would affect the interest rate and terms of any future financing initiatives. As a policy decision, utilities often measure revenue sufficiency and set rates based upon a higher debt service coverage level so as to ensure compliance with these type of covenants in the event future projections of revenue and expenses do not occur as predicted (due to extended drought conditions, unanticipated capital requirements or operating cost increases, natural disasters, etc.). As such, the financial management plan presented herein for the water and sewer systems reflects a minimum debt service coverage ratio for senior lien as well as subordinate debt that is greater than 1.50 throughout the projection period, which is indicative of a financially healthy or strong utility system per the evaluation criteria published by each of the major municipal utility rating agencies.

### 3.4 RESULTS

Based upon the data, assumptions, and policies presented herein, the Utility'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 Utility's current and projected cost requirements. The RSA identified the necessary increases for FY 2019 through FY 2027 that would provide adequate revenue to meet the projected requirements of the Utility through the projection period. Based on discussions with City staff, the rate increase adjustments presented herein are intended for implementation mid-fiscal year in FY 2019 (January 1<sup>st</sup>, 2019) and at the start of the fiscal year (July 1<sup>st</sup>) in each subsequent fiscal year. In FY 2019, cost of service-based rate adjustments are intended to be accomplished on 7/1/2018, in advance of the identified revenue adjustment.

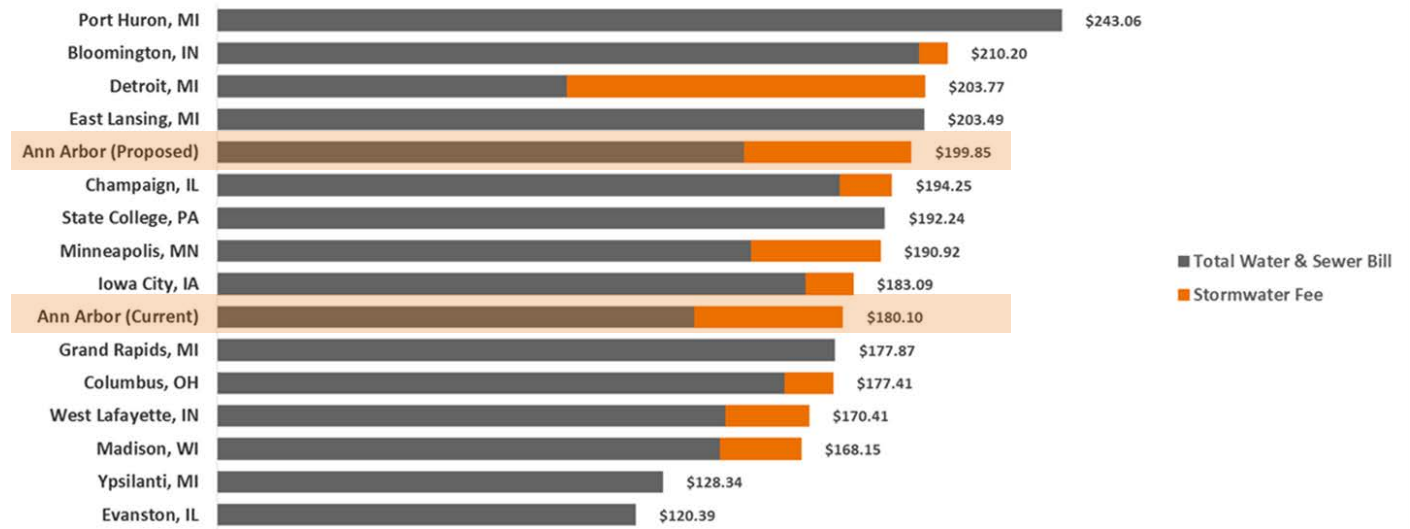
**Table 3-2 Rate Revenue Adjustment Projections**

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Water	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
Sewer	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%

Appendix A1 and A2 includes detailed schedules presenting all components of the financial management plan developed for the Utility. At the conclusion of the Study, the financial planning modules for both water and sewer were provided to City staff for the City's future beneficial use. As such, it is recommended that the Utility annually re-evaluate the level of adjustments identified herein as part of the budget process in order to capture the most up-to-date data with regards to revenues, operating expenses, capital investment needs, local economic conditions, volumetric demands, etc.

Additionally to provide context, a local comparative residential monthly bill analysis was conducted based upon current FY 2018 rates, the City's average residential use (18 CCF per quarter), and the average stormwater bill in the City. Figure 3-3 includes a combined water, sewer and stormwater residential bill calculation for the City based upon its current FY 2018 rates as well as the proposed rates resulting from this Study. As can be seen, the City is very comparable in cost for a typical user in its geographic area. Additionally, it should be noted that rate surveys only show the relative level of bill differentials between communities, and there are often level of service and other differences between communities that are not readily apparent. For example, the current stormwater rates in the City reflect the community's desire for a very high level of service.

**Figure 3-3 Combined Water & Sewer Bill at 18 CCF per Quarter**



## 4. COST OF SERVICE

A cost of service (COS) analysis was performed for both the water and sewer utility systems in order to identify the functional cost of providing each service and to assign that cost proportionality to each rate class based upon their unique contributions to or use of each system function. The legal environment within the State of Michigan requires that municipal service providers construct rates or user fees that adhere strictly to proportionality and cost of service principles. As such, every effort has been made to enhance the defensibility of the Utility's cost of service allocations, promote transparency, and ensure that the Utility's rates are fair and equitable for all customer or rate classifications.

In summary, the COS analysis determined the allocation of FY 2018 cost and corresponding revenue requirements between rate classifications using cost allocation guidelines and methods from the American Water Works Association (AWWA) and Water Environment Federation (WEF). Revenue requirements are defined as the amount of money the Utility must recover from the rates charged to its rate classes in order to meet its annual operating and capital expenditures.

The full annual prospective cost requirements of the Utility are described in detail within Section 3 of this report. However, for purposes of evaluating cost allocations to and revenue collection from rate classes, FY 2018 has been determined as a reasonable test year. As indicated previously, the cost of service-based rate structure adjustments resulting from this Study are intended to be implemented on 7/1/18 on a revenue neutral basis to ensure transparency of changes necessitated by the COS analysis. Subsequently, the needed increase in rates to satisfy the FY 2019 cost requirements of the Utility identified in Section 3 of this report is intended to be applied to the new rates presented herein on 1/1/19.

### 4.1 REVENUE REQUIREMENT SUMMARY

The annual cost of service for the City's water and sewer systems includes total operating and capital expenditures (including debt service requirements, reserve contributions, and cash funding of CIP). As can be seen in Table 4-1, the Utility receives revenue from other sources that partially offset its annual cost of service and reduce the portion of the cost of service that has to be recovered from its rates and charges (the remaining portion of the cost of service is often referred to as the "rate revenue requirement"). Specifically, these offsetting funding sources or revenues include:

- Sale for Resale Revenue
- Use of Fund Balances
- Inter-fund Transfers
- System Development Fees
- Miscellaneous Charges and Services
- Interest Earnings

**Table 4-1 Summary of Cost of Service & Revenue Requirement – FY 2018**

Description	Water	Sewer
<b>Operating and Maintenance Expenses</b>	\$18,451,001	\$15,904,025
<b>Annual Debt Service - Outstanding Debt</b>	4,104,574	9,457,683
<b>Cash Funded Capital Projects</b>	10,172,250	3,867,883
<b>Total Cost of Service</b>	<b>\$32,727,825</b>	<b>\$29,229,591</b>
<b>Less: Offsetting Revenue</b>		
Use of Fund Balance	2,680,000	1,700,000
Sale for Resale Revenues	2,379,531	3,748,440
System Development fees	1,275,000	-
Miscellaneous Fees & Charges	666,700	241,815
Transfers In	1,440,905	-
Interest Earnings	270,246	25,000
Private Fire Protection	25,711	
<b>Total Rate Revenue Requirement</b>	<b>\$23,989,732</b>	<b>\$23,514,336</b>

## 4.2 FUNCTIONALIZATION OF SYSTEM COSTS

### O&M Expenses

The system functions included in the COS analysis are listed in Table 4-2, which provides a summary of the FY 2018 O&M expenses allocated to each function for the water and sewer systems. The values reflect a detailed allocation of each line item of the full operating budget performed with City staff.

**Table 4-2 Summary of O&M Expenses - FY 2018**

System Function/Name	Water System O&M
<b>Source of Supply</b>	\$2,234,065
<b>Treatment</b>	\$14,238,843
<b>Transmission/Distribution</b>	\$12,851,499
<b>Customer</b>	\$2,900,490
<b>Fire Protection</b>	\$502,928
<b>Total Water O&amp;M</b>	<b>\$32,727,825</b>

System Function/Name	Sewer System O&M
<b>Customer</b>	\$723,082
<b>Collection</b>	\$7,662,104
<b>Treatment</b>	\$20,844,405
<b>Total Sewer O&amp;M</b>	<b>\$29,229,591</b>



## Capital Expenditures

Similar to O&M, the capital costs of the Utility were allocated to system functions. Capital costs include annual debt service and cash funded capital expenditures. The cash-funded capital costs for the water system were allocated to system functions using the 5-year adopted CIP. For example, water main replacements are allocated 100% to the Transmission/Distribution function. The allocations of the 5-year CIP by function were then utilized to allocate cash funded capital costs to each function. This methodology is used when a utility system's adopted 5-year CIP is a good representation of the capital investments that will be made over time. While the 5-year CIP was allocated to functions for the sewer system, cash funded capital costs were ultimately determined to be best allocated in proportion to total expenditures, and fixed assets were utilized to allocate existing debt service for each system respectively.

**Table 4-3 Summary of 5-Year Capital Expenditures**

System Function/Name	Water System 5-Year Capital
<b>Sources of Supply</b>	\$11,985,000
<b>Treatment</b>	31,635,000
<b>Transmission/Distribution</b>	34,255,000
<b>Customer</b>	5,256,250
<b>Total</b>	<b>\$83,131,250</b>

System Function/Name	Sewer System 5-Year Capital
<b>Customer</b>	\$0
<b>Collection</b>	19,488,500
<b>Treatment</b>	1,000,000
<b>Total</b>	<b>\$20,488,500</b>

## Offsetting Revenue

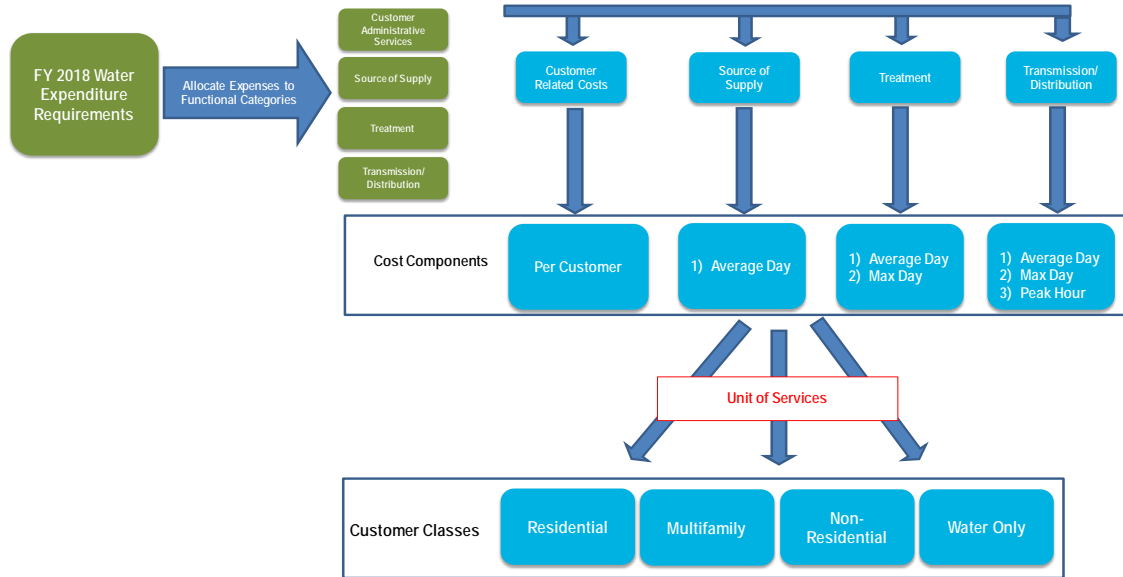
In a COS analysis, miscellaneous revenue or funding sources received by the Utility are used to reduce or "offset" the amount of revenue to be recovered from rates and charges. This offsetting revenue and funding sources include sales for resale, use of reserves, capital recovery fees, tap fees, miscellaneous fees, installation charges, and interest earnings. This offsetting revenue was allocated to each rate class based upon customer counts, residential equivalent units, flows, or in proportion to expense allocations, as appropriate. A full list of the offsetting revenue (and allocations) is included in Appendix B1 and B2.

## 4.3 COST ALLOCATION FRAMEWORK

The cost of service methodology utilized for the water system was the Base-Extra Capacity method as identified in AWWA Manual M-1, Principles of Water Rates, Fees, and Charges. This method is best utilized in situations where one of the main drivers of cost is meeting seasonal demands placed on the

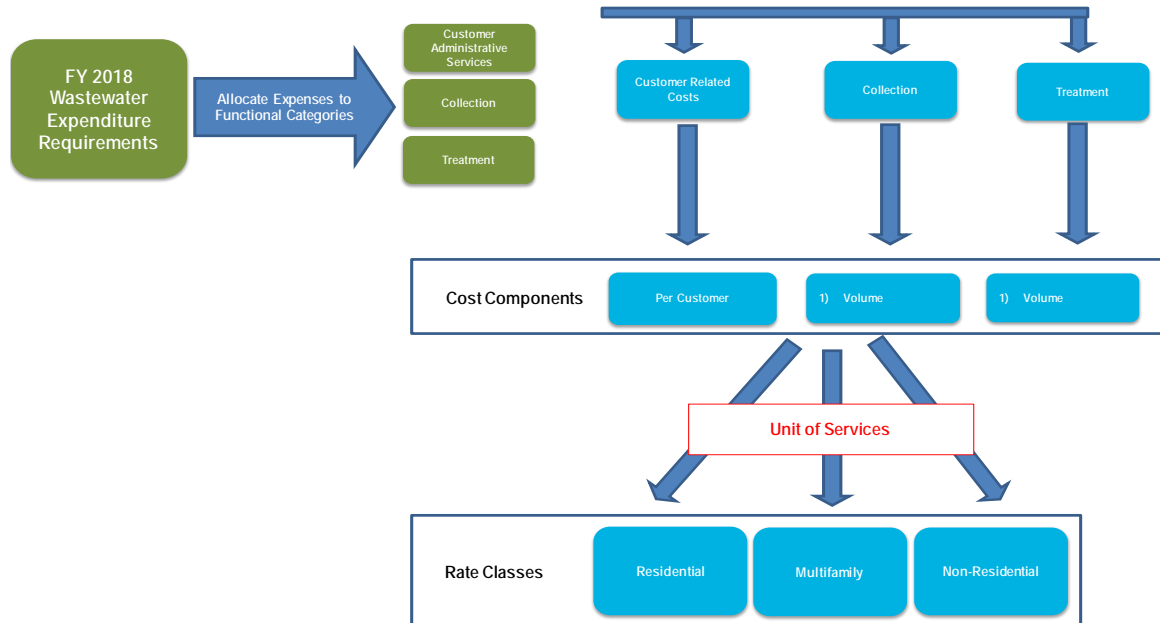
system. In the Utility’s case, the amount of water delivered from the minimum month (usually February) to the maximum month (usually July) essentially doubles.

**Graphic 4-4 Summary of Water Cost Allocation Process**



With regards to the sewer cost allocation process, the Utility does not have any monitored industries with stronger than domestic wastewater loadings that would otherwise require a more detailed cost of service analysis. As such, the sewer COS followed a simplified approach in which the costs of each function were distributed using either customer counts or billed volume.

**Graphic 4-5 Summary of Sewer Cost Allocation Process**



Many functions of the water and sewer systems are appropriately associated with a single unit of service, such as Source of Supply to meeting total or average day demands. However, certain water system functions are sized for and serve multiple types of demands. In those instances, functions were allocated based on ratios of average, daily, and hourly water plant production data provided by City staff.

**Table 4-6 Summary of Functional Component Assignment to Units of Service**

Water System Function	Avg-Day	Max-Day	Max-Hour	Customer	Fire Protection
<b>Source of Supply</b>	100%	0%	0%	0%	0%
<b>Treatment</b>	53%	47%	0%	0%	0%
<b>Transmission/ Distribution</b>	29%	26%	45%	0%	0%
<b>Customer</b>	0%	0%	0%	100%	0%
<b>Fire Protection</b>	0%	0%	0%	0%	100%

Sewer System Function	Customer	Volume
<b>Customer</b>	100%	0%
<b>Collection</b>	0%	100%
<b>Treatment</b>	0%	100%

Based upon the functionalization of costs and unit of service assignments presented above, the following tables show the resulting allocation of system costs by function to each unit of service category that are then distributed to customer or rate classes based upon their respective units of service.

**Table 4-7 Summary of Functional Component Assignment to Units of Service in Dollars**

Water System Function	Avg-Day	Max-Day	Max-Hour	Customer	Fire Protection	Total
<b>Source of Supply</b>	\$2,234,065	\$0	\$0	\$0	\$0	\$2,234,065
<b>Treatment</b>	\$7,576,219	\$6,662,624	\$0	\$0	\$0	\$14,238,843
<b>Transmission/Distribution</b>	\$3,770,844	\$3,316,128	\$5,764,527	\$0	\$0	\$12,851,499
<b>Customer</b>	\$0	\$0	\$0	\$2,900,490	\$0	\$2,900,490
<b>Fire Protection</b>	\$0	\$0	\$0	\$0	\$502,928	\$502,928
<b>Total:</b>	<b>\$13,581,128</b>	<b>\$9,978,752</b>	<b>\$5,764,527</b>	<b>\$2,900,490</b>	<b>\$502,928</b>	<b>\$32,727,825</b>

Sewer System Function	Customer	Volume	Total
<b>Administration/ Customer</b>	\$723,082	\$0	\$723,082
<b>Collection</b>	\$0	\$7,662,104	\$7,662,104
<b>Treatment</b>	\$0	\$20,844,405	\$20,844,405
<b>Total:</b>	<b>\$723,082</b>	<b>\$28,506,509</b>	<b>\$29,229,591</b>

## 4.4 CUSTOMER CHARACTERISTICS

### *Water System*

Individual customer demands vary depending on the nature of the utility use at the location where service is provided. For example, water service demand for a family residing in a typical single-family home is different than the water service demand for an irrigation-only customer, primarily due to peak use behavior which drives the need for larger infrastructure. As a practical matter, it is not feasible to allocate system costs at the individual account level. As such, the industry standard, as promulgated by AWWA's M1 Manual, is to group customers with similar characteristics into classes. Rates are then developed for each class, with each customer paying the class' average allocated cost of service for use of the system.

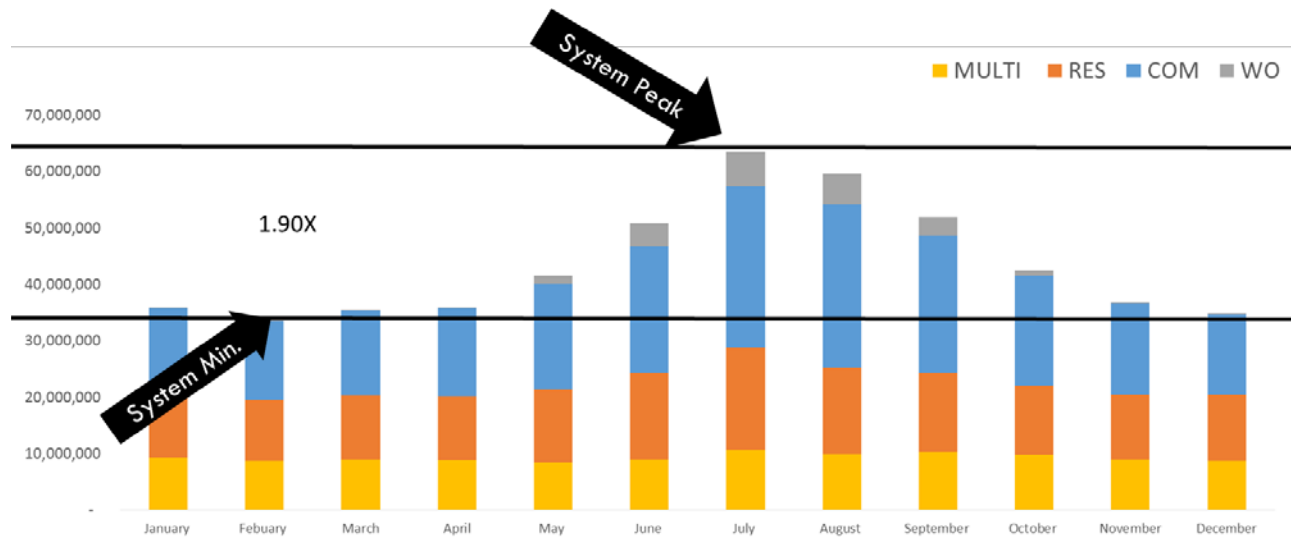
The Utility’s current water and sewer rate classes include:

- Residential\*
- Commercial
- Water Only

\*Residential customers include multifamily accounts with less than five units, while larger multifamily customers are currently classified as Commercial. Additionally, Residential customers with a separate Water Only meter are charged tier 1 and tier 2 rates only for their water use on the domestic meter.

In evaluating the Utility’s current rate classes, the City was uniquely able to provide advanced metering infrastructure (AMI) data, which allows for a more granular understanding of customer use characteristics in determining appropriate rate classes. Through this analysis, the merits of a new multifamily rate class was contemplated. By combining the AMI usage data, University of Michigan dormitory data, and the City’s rental housing database (TRAKIT), approximately 2,400 multifamily customers were identified and their usage characteristics were compared to those of the other rate classes. The following graphic displays the monthly volumetric usage by rate class over calendar year 2016.

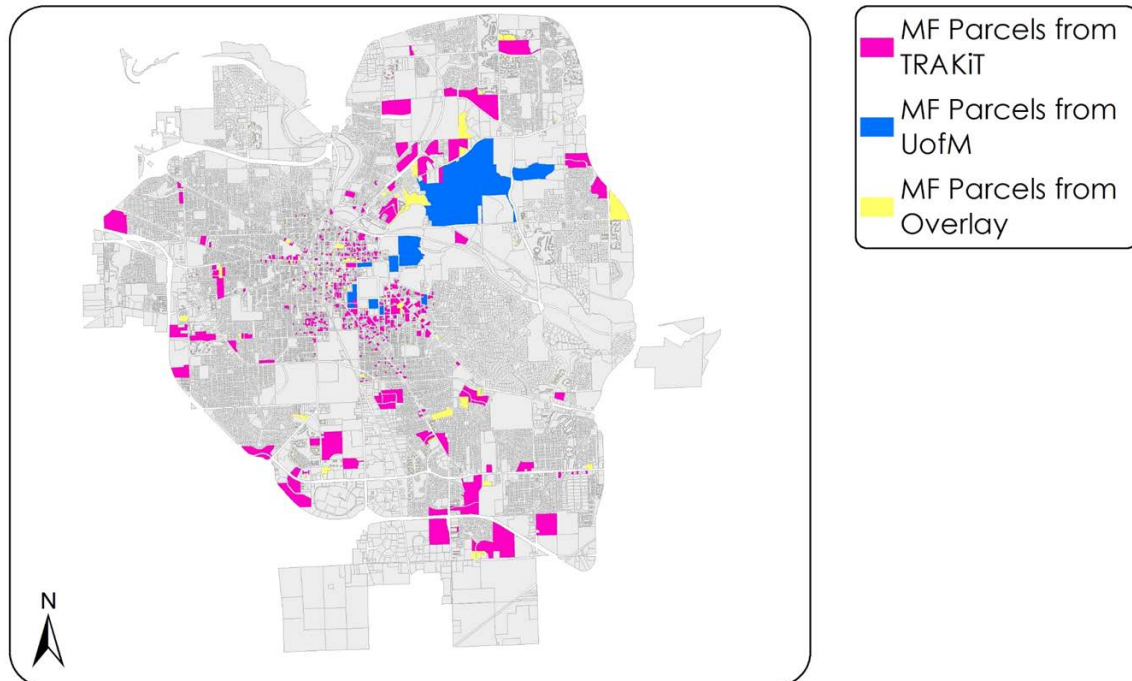
**Graphic 4-8 Comparison of Multifamily to Other Rate Classifications**



As can be seen, the multifamily class has unique trends in water usage. Specifically, the multifamily class as a whole displays little seasonal demand changes (however, that is not to say that individual customers within the class do not have such changes). The absence of large seasonal demand fluctuations is important, as significant portion of the water system investment that the Utility has made is to serve peak demands. Based on these initial findings, a multifamily rate class was created for further exploration throughout the COS analysis. The following graphic displays a map of the identified multifamily customers in the community. Additionally, it highlights the use of multiple data sources in order to identify as many multifamily properties as possible. Although the analysis included herein evaluated multifamily accounts

with 5 units or greater, City staff conducted a separate analysis that evaluated the usage characteristics for 3 and 4 unit multifamily customers. City staff's analysis identified that these customers have similar demand characteristics and should be added to the multifamily rate classification upon implementation.

#### Graphic 4-9 Comparison of Multifamily Customer Data Sources



As such, the proposed water and sewer rate classes for the Utility include:

- Residential
- Multifamily
- Non-Residential
- Water Only

Using FY 2016 AMI data, units of service for average day, maximum day, and peak hour demands were developed for each proposed rate class. The Utility had a substantially complete dataset of daily demands for all active accounts, and a partial data set of hourly demands for a subset of accounts within each rate class. The detailed information available from the City's AMI system relative to daily and hourly customer demands is unique, and offers an opportunity to have an enhanced cost of service allocation based upon local observations of actual customer usage characteristics. In summary, the units of service relied upon in the COS analysis are presented in the following graphic and table.

Graphic 4-10 AMI Derived Peaking Factors

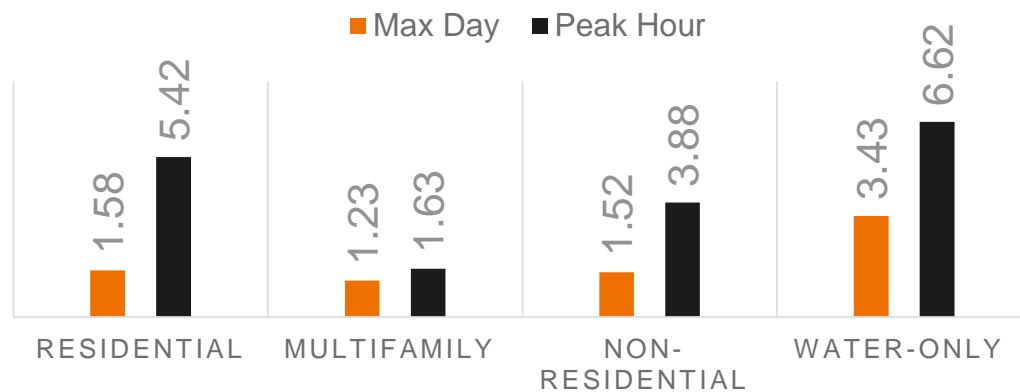


Table 4-11 Summary of Water System Units of Service

Customer Class	# of Meters/ Units	Total Annual Usage (CCF)	Avg. Day Usage (CCF)	Max-Day Usage (CCF)	Max-Hour Usage (CCF)
Residential	22,065	1,549,743	4,246	6,708	23,013
Multifamily	2,178	1,547,950	4,241	5,216	6,913
Non-Residential	3,619	2,107,118	5,773	8,775	22,399
Water Only	542	675,275	1,850	6,346	12,247
<b>Totals</b>	<b>28,404</b>	<b>5,880,086</b>	<b>16,110</b>	<b>27,045</b>	<b>64,572</b>

### Wastewater System

Customer counts and billed sewer volume by rate class were used to allocate wastewater system costs and rate revenue requirements to rate classes. Industry guidelines promote two primary approaches to allocating wastewater costs: the quantity/quality approach and the surcharge approach. Under the quantity/quality approach, each class' waste is measured and rates are based on the amount of pollutants discharged to the system. With the surcharge approach, all rate classes are assumed to contribute average domestic strength waste. Those monitored users discharging above a certain limit are assessed a high strength surcharge. The City follows the surcharge approach for recovering wastewater costs. In summary, the units of service relied upon in the COS analysis are presented in the following table.

Table 4-12 Summary of Sewer System Units of Service

Customer Class	# of Meters/ Units	Flow (CCF)
<b>Residential</b>	24,515	1,539,766
<b>Multifamily</b>	1,146	448,308
<b>Non-Residential</b>	3,459	2,727,664
<b>Totals</b>	<b>29,120</b>	<b>4,715,738</b>

## 4.5 COST TO SERVICE EACH RATE CLASS

Once the FY 2018 costs were allocated to functions, each rate class' units of service were applied to establish the gross cost to serve each rate class.

Table 4-13 Summary of Cost to Serve by Customer Class

System Function	Single Family	Multifamily	Non-Residential	Water Only	Total
<b>Customer</b>	\$2,253,180	\$222,408	\$369,556	\$55,347	\$2,900,491
<b>Average Day</b>	\$3,586,189	\$3,582,041	\$4,875,985	\$1,562,624	\$13,606,839
<b>Max Day</b>	\$2,247,127	\$890,072	\$2,739,254	\$4,102,298	\$ 9,978,751
<b>Peak Hour</b>	\$2,504,525	\$260,586	\$2,092,837	\$906,580	\$5,764,528
<b>Fire Protection</b>	\$266,874	\$79,028	\$131,314	\$0	\$477,216
<b>Total:</b>	<b>\$10,857,895</b>	<b>\$5,034,135</b>	<b>\$10,208,946</b>	<b>\$6,626,849</b>	<b>\$32,727,825</b>

System Function	Single Family	Multifamily	Non-Residential	Total
<b>Customer</b>	\$608,735	\$28,456	\$85,891	\$723,082
<b>Collection</b>	\$2,501,805	\$728,403	\$4,431,896	\$7,662,104
<b>Treatment</b>	\$6,806,047	\$1,981,587	\$12,056,771	\$20,844,405
<b>Total:</b>	<b>\$9,916,587</b>	<b>\$2,738,446</b>	<b>\$16,574,558</b>	<b>\$29,229,591</b>



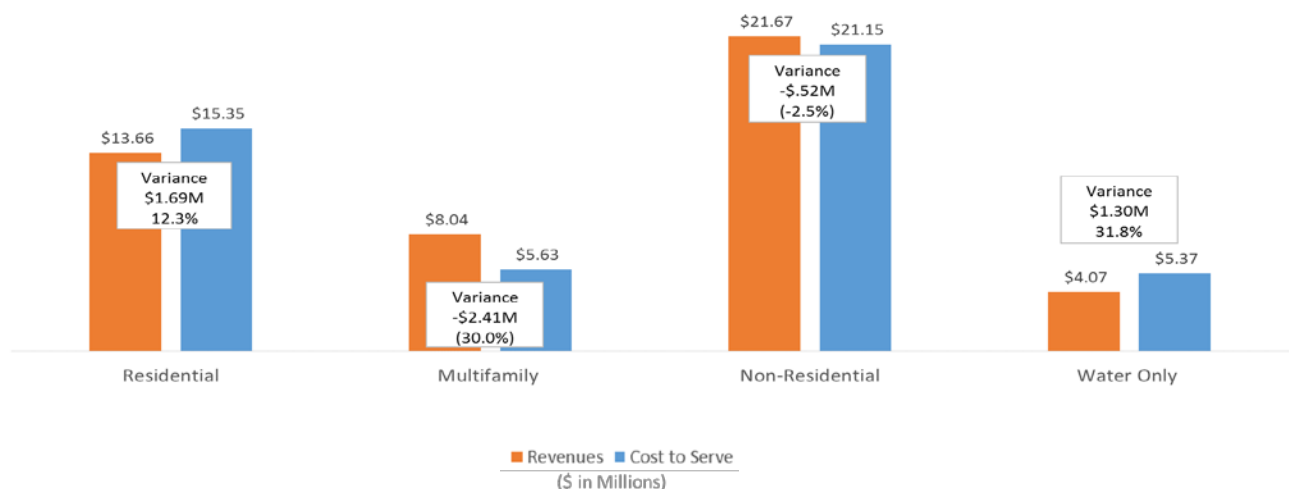
Subsequently, offsetting revenues were allocated to each rate class and deducted from the cost of service allocations (See Appendices B1 and B2 for details) shown in Table 4-13 to determine the revenue requirement or net cost to serve each rate class shown in the table below.

**Table 4-14 Summary of Revenue Requirement for Each Rate Class**

Rate Class	Water	Sewer	Total
Residential	\$7,475,072	\$7,875,482	\$15,350,554
Multifamily	\$3,420,881	\$2,212,960	\$5,633,841
Non-Residential	\$7,725,190	\$13,425,894	\$21,151,084
Water Only	\$5,368,589	\$0	\$5,368,594
<b>GRAND TOTAL</b>	<b>\$23,989,732</b>	<b>\$23,514,336</b>	<b>\$47,504,068</b>

It is important to note that the recommended rate structure presented in the following section of this report does not include the identified rate revenue adjustment for mid-year FY 2019. The recommended rates presented herein are “revenue neutral”, and only reflect the distribution of revenue necessary to bring revenue by rate class into alignment with the cost to serve each class. The following graphic displays the results of the cost of service analysis for both water and sewer combined, and shows the relative comparison between the cost to serve each rate class and the current revenue collected from the same rate classes. From the graphic, it is evident that the Residential and Water Only rate classes are being charged less than the cost to serve them, while the rates being applied to Multifamily and Non-Residential (i.e. commercial) customers are recovering more than the identified cost to serve those classes. Given the length of time since the Utility’s last cost of service study, better data from its AMI system, and industry allocation methodology improvements, these types of differences are to be expected.

**Graphic 4-13 Current Revenue and Cost to Serve Comparison**



## 5. RATE CALCULATION

The Study included an examination of the City's current water and sewer rates and development of recommended rate structure modifications that i) fairly and equitably recover the City's identified cost to serve each respective rate class, ii) conform to accepted local and national industry practices, iii) ensure fiscal stability and reasonable recovery of fixed costs, and iv) minimize administrative burden and enhance the ability to be easily understood by stakeholders.

The Utility's existing rate structure is comprised of quarterly fixed charges by meter size and volumetric charges per CCF (commonly referred to as a "Unit" for billing purposes) that vary by rate classification. The existing volumetric water rates for Residential customers is a three-tier inclining block rate structure, while all other water rate classes have a unique uniform volumetric rate applied to all consumption. The Utility's sewer rates include the same quarterly fixed charges as water service, and a uniform volumetric rate applicable to all rate class for all billed sewer volume. Additionally, it is important to note that the Utility applies a 10% discount for prompt payment by the due date. *As such, all current and proposed bill calculations included in this section of the report include the 10% discount unless otherwise noted.*

The following page includes a summary of the current rates and charges of the Utility for each rate classification or customer class.

## Current FY 2018 Water and Sewer Fixed Quarterly Charges by Meter Size:

Meter Size	Current
5/8	\$ 11.25
3/4	\$ 16.55
1	\$ 30.30
1.5	\$ 62.00
2	\$ 97.00
3	\$ 95.00
4	\$ 308.00
6	\$ 613.00
8	\$ 1,225.00
10	\$ 1,960.00

## FY 2018 Water Volumetric Rates (\$/CCF or Unit, Showing Quarterly Consumption in Each Tier):

- Residential<sup>1</sup>
  - Tier 1: up to 7 CCF, \$1.55
  - Tier 2: over 7 to 28 CCF, \$3.37
  - Tier 3: over 28 CCF, \$5.89
- Commercial<sup>2</sup>
  - Peaking 1, \$3.81
  - Peaking 2, \$7.26
  - Peaking 3, \$12.44
- Water Only
  - All Use \$5.89

## FY 2018 Sewer Volumetric Rate (\$/CCF, Note: Residential Volume Based on Winter Quarter Average):

- All Customers
  - All Use, \$4.58

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<sup>1</sup> Residential customers with a separate water only meter are classified RES 2 and only have the first 2 tiers apply to their consumption.

<sup>2</sup> Peaking 1: factor less than 5, Peaking 2; factor between 5 and 8, Peaking 3; factor greater than 8

## 5.1 QUARTERLY FIXED CHARGES

Common industry practice is to develop a two-part rate structure comprised of both fixed and variable charges. Generally accepted practice recovers a portion of system costs in a fixed charge, recognizing that utilities have substantial cost that are customer-specific such as meter replacement, public fire protection, and customer service costs that are incurred year-round. Utilities incur these fixed costs regardless of water use. Failure to establish a proper level of fixed cost recovery subjects the Utility to revenue volatility in certain conditions, such as abnormal weather or economic events.

During the conduct of the Study, several observations were made relative to level of the Utility's fixed charges. As part of preparing comparative rate surveys, it was noted that the City has some of the lowest fixed charges of the entities surveyed. Moreover, the current fixed charges only represent about 12% of the Utility's annual revenue, whereas rating agency guidance and observed industry practices target 30% of annual revenue from fixed service charges. Lastly, the Utility's current charges are the same for water and sewer services, whereas many utilities will establish separate fixed charges that are unique to the cost requirements of each respective system or service.

It is recommended that the Utility update its fixed charges to reflect the current cost for meter replacement, public fire protection, and administrative activities. Specifically, the fixed charge should recover administrative costs (such as customer service, billing and collection, meter reading, etc.) equally per meter, meter replacement costs based on the specific cost and useful life of each meter size, and public fire protection costs based upon meter size (in the water charge only). It is important to note that meter replacement costs have been split evenly between water and sewer fixed charges, recognizing that the meter provides the basis for billing both water and sewer service charges. The proposed fees presented below reflect the unique cost of service by meter size for each system, conform to industry practices, and are anticipated to comprise a slightly greater percentage of the Utility's annual revenue.

**Table 5-1 Proposed Water and Sewer Quarterly Fixed Charges**

WATER SERVICE		SEWER SERVICE	
5/8 " meter	\$20.89	5/8" meter	\$13.09
3/4" meter	22.43	3/4" meter	13.47
1" meter	25.26	1" meter	13.98
1½" meter	33.09	1½" meter	16.01
2" meter	41.90	2" meter	17.84
3" meter	88.47	3" meter	45.86
4" meter	115.48	4" meter	51.98
6" meter	176.75	6" meter	55.22
8" meter	257.21	8" meter	66.07
10" meter	343.11	10" meter	70.74

## 5.2 VOLUMETRIC CHARGES

As indicated, adjustments to the City's current inclining block rate structure (in number, size, and pricing of each block or tier) are recommended to conform to the current cost to serve, reflect current usage profiles, strengthen legal defensibility, and improve conformance to accepted industry practices.

Table 5-2 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 table illustrates the development of the initial tier at 9 CCF per quarter, which is sufficient to provide an allowance for typical indoor domestic use of 36.7 gallons per capita per day (per the Residential End Uses of Water, Version 2, published in April of 2016 by the Water Research Foundation), and an assumed 2.0 persons per household. Incorporating readily available industry data relative to residential per person indoor water use into the tier setting process enhances the ability of the tier structure to reflect current usage profiles. The next tier spans from 9 to 18 CCF per quarter, providing an additional allowance for the indoor domestic use of larger families (which may in some cases also represent modest amounts of outdoor use by smaller families).

The next tier (18 to 36 CCF quarterly) would accommodate reasonable amounts of discretionary irrigation for typical properties, based on a GIS analysis of typical residential lot sizes, irrigable area, and water requirements for normal landscape in the City. The existing top tier would then be revised to include all usage over 36 CCF quarterly. Based upon FY 2016 billing data, less than 10% of all residential bills issued have usage over 36 CCF per quarter.

**Table 5-2 Residential Water Usage Profile**

Tier 1	Value	Block Max	Current
People per Household	2.00		
Typical Indoor Use (Gallons per Capita per Day)	36.7		
Typical Essential Domestic Use (CCF/month)	2.98		
<b>First Tier Usage Amount (CCF)</b>	<b>9</b>	<b>9</b>	<b>7</b>

Tier 2	Value	Block Max	Current
People per Household	4.00		
Typical Indoor Use (Gallons per Capita per Day)	36.7		
Typical Essential Domestic Use (CCF/month)	5.97		
<b>Second Tier Usage Amount (CCF)</b>	<b>18</b>	<b>18</b>	<b>28</b>

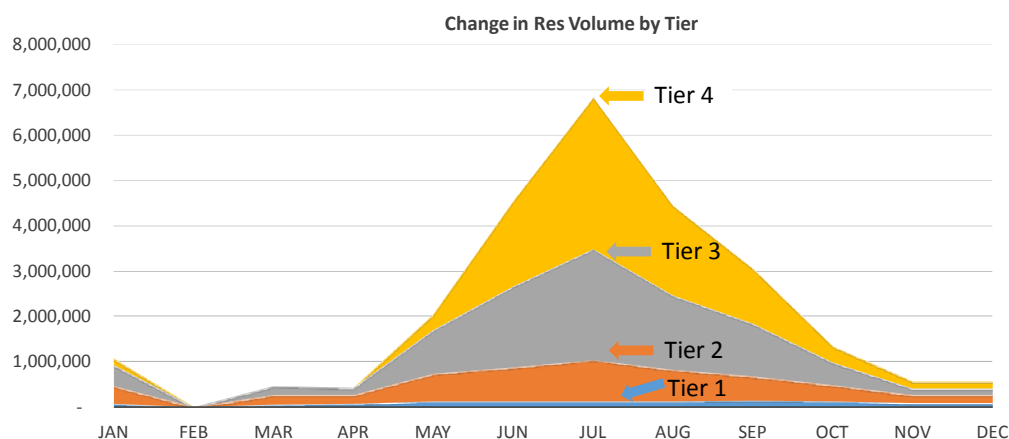
Tier 3	Value	Block Max	Current
<b>Typical parcel (sq. ft.)</b>	10,890		
Square inches of area in 1/4 acre	2,090,880	<i>(calculated)</i>	
% of area that is irrigable	25%		
Reference ET (inches)	32.0		
Average annual rainfall	36.0	10%	
Crop Coefficient	75%		
Irrigation Efficiency	70%		
Water Budget (CF per month)	5.753	<i>(calculation)</i>	
<b>Third Tier Usage Amount (CCF)</b>	<b>18</b>	<b>36</b>	<b>&gt;28</b>

<b>Fourth Tier Usage Amount (CCF)</b>	<b>All Use</b>	<b>&gt;36</b>	
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Once reasonable tiers were constructed using the most relevant and recent data, the rate structure analysis used the COS results to calculate the unit cost/rate for each tier. Connecting the cost of service to the volumes and seasonal demand patterns present within each tier creates a strong, proportional, and transparent relationship between the use of water and the cost of service. The following graphic displays the relative contribution of peak demands from the Residential class for each proposed tier.

**Graphic 5-3 Residential Water Usage by Tier in Cubic Feet (CF)**



It is very evident from the preceding graphic that the volumes in each tier are quite different in their contributions to peak demands, and generally reflect the usage profile employed to size each tier.

The pricing for each tier reflected the allocated proportion of the average day, maximum day, and peak hour costs for the demands in each respective tier as shown in Table 5-4 below. Max day and peak hour volumes shown are the proportional change in volume from February (system min) to July (system peak).

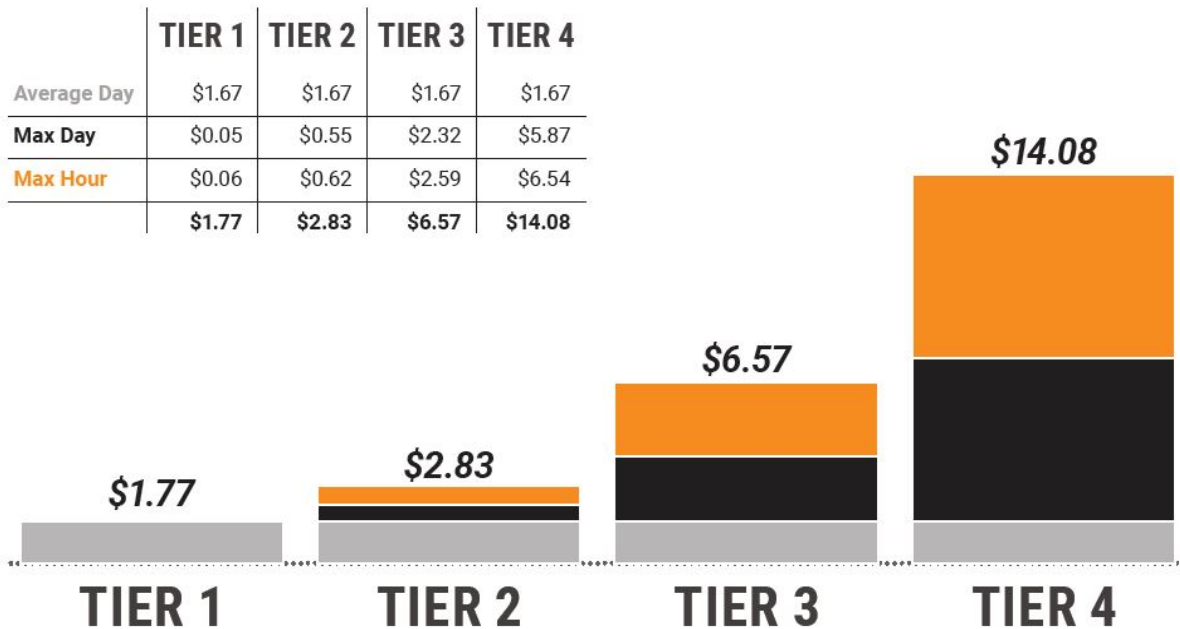
**Table 5-4 Residential Units of Service & Cost Allocations by Tier**

Units of Service by Tier CCF	Average Day	Max Day	Peak Hour
<b>Tier 1</b>	674,229	126,100	126,100
<b>Tier 2</b>	438,039	902,300	902,300
<b>Tier 3</b>	285,236	2,464,900	2,464,900
<b>Tier 4</b>	152,238	3,328,400	3,328,400

System Cost by Tier	Average Day	Max Day	Peak Hour
<b>Tier 1</b>	\$1,010,380	\$30,473	\$33,963
<b>Tier 2</b>	\$656,432	\$218,045	\$243,021
<b>Tier 3</b>	\$427,447	\$595,653	\$663,883
<b>Tier 4</b>	\$228,140	\$804,322	\$896,453

As can be seen from the summary graphic on the following page, tiers 3 and 4 have a larger allocation of system costs associated with serving maximum day and peak hour demands due to their significantly great contribution to the peak demands placed on the Utility.

**Graphic 5-5 Residential Water Pricing per CCF**



For all other rate classes, a uniform volumetric rate based on the cost to serve each respective class was determined to be the most appropriate rate structure, similar to what is effectively in place today. The Utility presently has a sub-classification system for Non-Residential customers based on peaking factors, whereby approximately 98% of users fall in the first classification, effectively rendering the current system a uniform rate structure (which is the most common industry practice for Non-Residential customers).

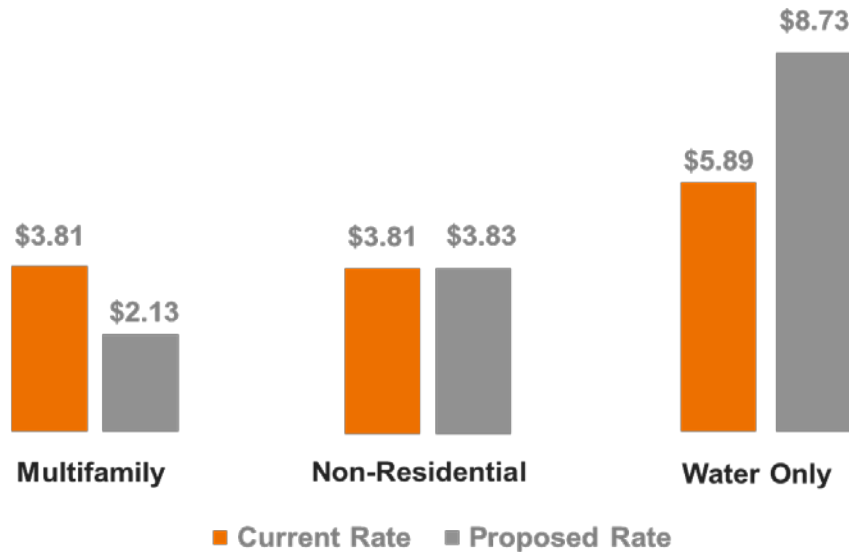
While the Non-Residential, Multifamily, and Water Only rate classes do place seasonal demands on the system, the cost of serving those respective demands will be paid via a charge per CCF or Unit of water used. As a class, it is well established and supported by data (as is the case here) that Residential customers use water differently than Non-Residential, Multifamily, and Water Only customers. However, for customers within a class, such as different types of Non-Residential customers, there needs to be a rationale, data, and system for developing and administering a structure that is fair and based on the cost to serve. Within the Non-Residential class, there is a wide variety of business types with different levels of water usage requirements and metering configurations, such that charging a tiered volumetric rate for this customer class as a whole would not be fair.

For example, a small office in the City may use about 20 CCF throughout the year, and a restaurant with the same square footage may use 100 CCF throughout the year. If a second tier rate were set at 50 CCF, that would be unfair to the restaurant to charge them more for 50 CCFs, even though they are not contributing to the cost that is driving the Non-Residential peak to the system. Because Non-Residential customers have no standard activity to determine a fair way to allocate the cost of service in the pricing structure, a flat rate is the most equitable in the absence of the data, system, and resources to establish and maintain individualized customer-specific tiers. Should the City desire to evaluate non-residential tiers in the future, data relative to property size, business type, irrigable area, and peak demands (daily and



hourly) should be collected and maintained for each customer. The same rationale holds true for the Multifamily class, because there are Multifamily customers that have 5 units on one meter, and others that have 50 units. Recognizing customer-specific data requirements and system limitations, a uniform rate is the most equitable method to have these classes (and Water Only) as a whole pay for the cost of service.

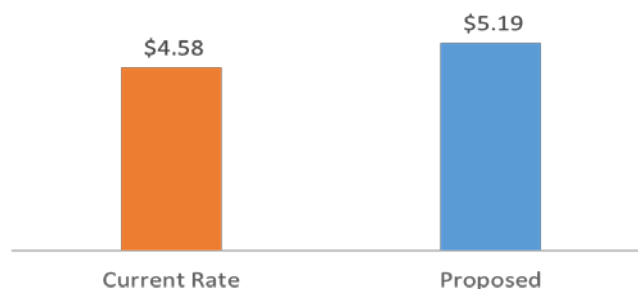
**Table 5-6 Water Pricing Per CCF for Other Rate Classes**



*Rates shown before 10% on time payment discount, Current Non-Residential rate shown is Peak factor 1*

The Utility currently has a uniform volumetric rate for sewer service applicable to all rate classes based on measured water consumption in each billing cycle, with the exception that winter average water use serves as the basis of billing in summer months for the Residential class. Doing so ensures that Residential seasonal water demands likely associated with outdoor irrigation are not charged sewer. No adjustments are recommended to the Utility’s current sewer volumetric rate structure as the structure conforms to accepted industry practice. As such, this analysis only updated the volumetric rate per CCF or Unit to reflect the results of the COS analysis, including the distribution of revenue requirements between fixed and volumetric charges. The resulting rate is proposed at 5.19 per CCF used per quarter.

**Table 5-7 Sewer Pricing per CCF for All Rate Classes**



*Rates shown before 10% on time payment discount*

### 5.3 CUSTOMER IMPACTS

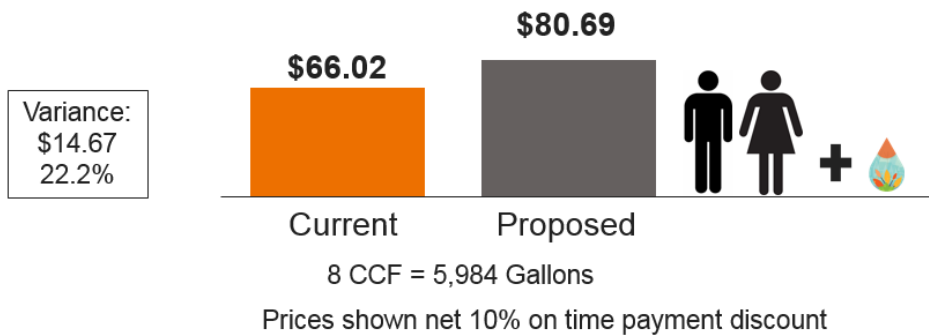
When considering any rate changes, an understanding of how the proposed changes will impact different customers at various levels of water use is essential to understand and communicate. As such, several customer impact analyses were prepared as part of the Study to identify the impact of the proposed rates. The following graphics present a comparison of the current water and sewer bill as compared to the bill under the proposed rates for various customer types and water usage levels.

#### Graphic 5-8 Residential Quarterly Water & Sewer Bill Impact Scenario 1

5/8” meter with water and sewer service

Two person household with minimal outdoor water use

8 CCF per quarter

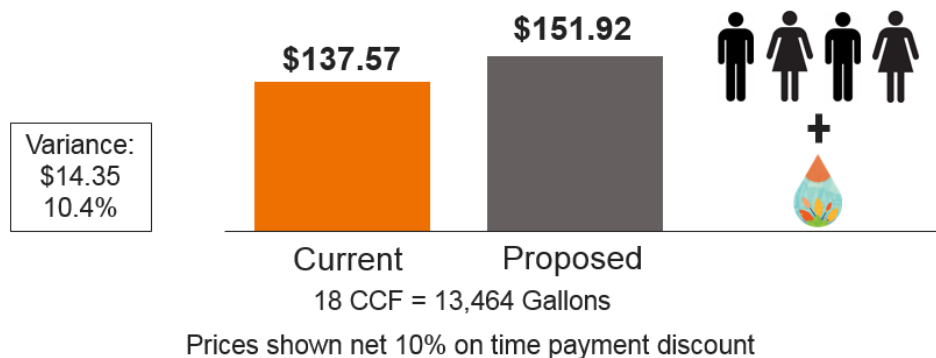


#### Graphic 5-9 Residential Quarterly Water & Sewer Bill Impact Scenario 2

5/8” meter with water and sewer service

Four person household with minimal outdoor use

18 CCF per quarter

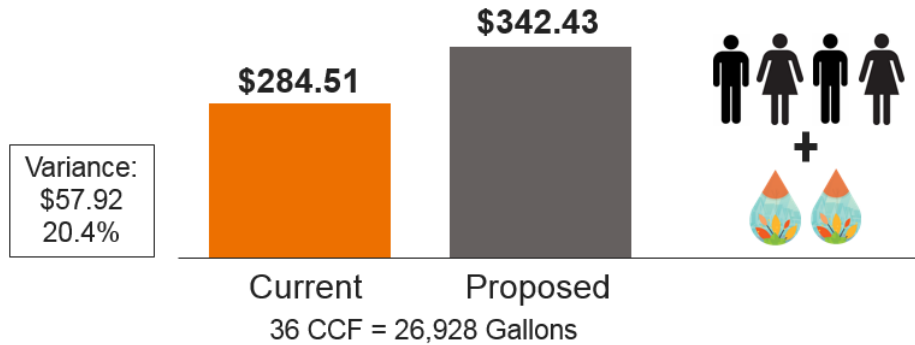


**Graphic 5-10 Residential Quarterly Water & Sewer Bill Impact Scenario 3**

5/8" meter with water and sewer service

Four person household with moderate outdoor use

36 CCF per quarter



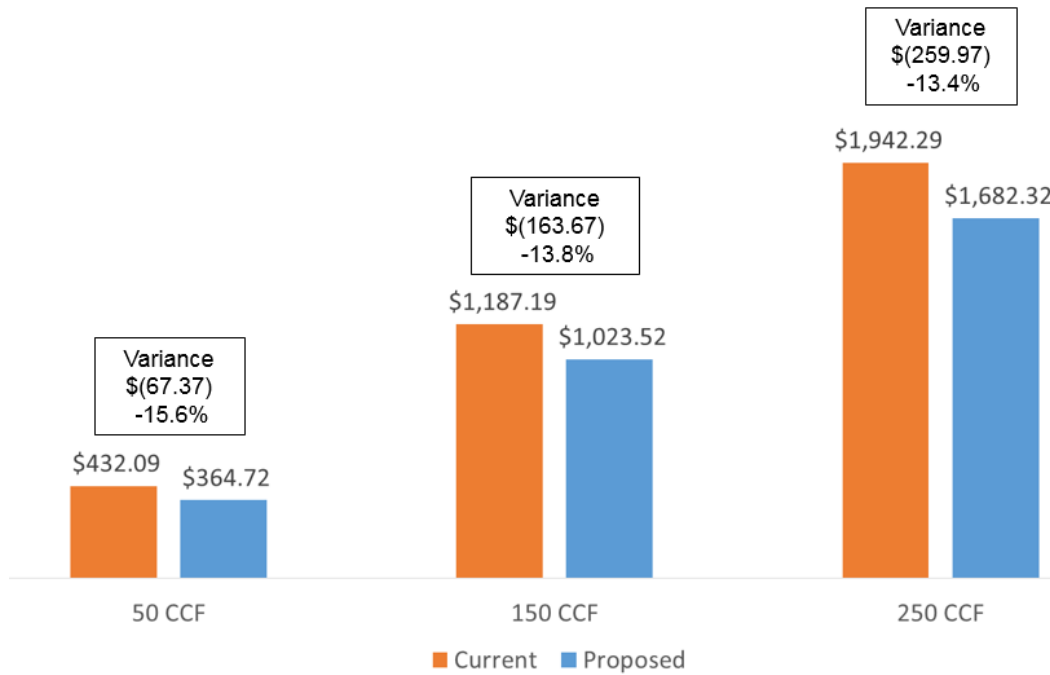
Prices shown net 10% on time payment discount

**Graphic 5-11 Select Non-Residential Quarterly Bill Impacts**

Type	Meter	Current	Proposed	Change \$	Change %
Grocery Store	2"	\$ 8,002	\$ 7,573	\$ (429)	-5%
Deli	1.5", 1.5"	\$ 4,747	\$ 4,434	\$ (313)	-7%
Pub	1.5"	\$ 3,883	\$ 3,667	\$ (216)	-6%
Brewery	1", 5/8"	\$ 2,660	\$ 2,550	\$ (110)	-4%
Teen Center	5/8"	\$ 166	\$ 171	\$ 5	3%
Specialty Store	5/8"	\$ 288	\$ 288	\$ -	0%
Hotel	2",3"	\$ 24,319	\$ 23,031	\$ (1,288)	-5%
Professional Office	2"	\$ 1,613	\$ 1,436	\$ (178)	-11%
Dry Cleaners	5/8"	\$ 430	\$ 441	\$ 11	3%
Hospital	6"	\$ 29,143	\$ 27,672	\$ (1,471)	-5%

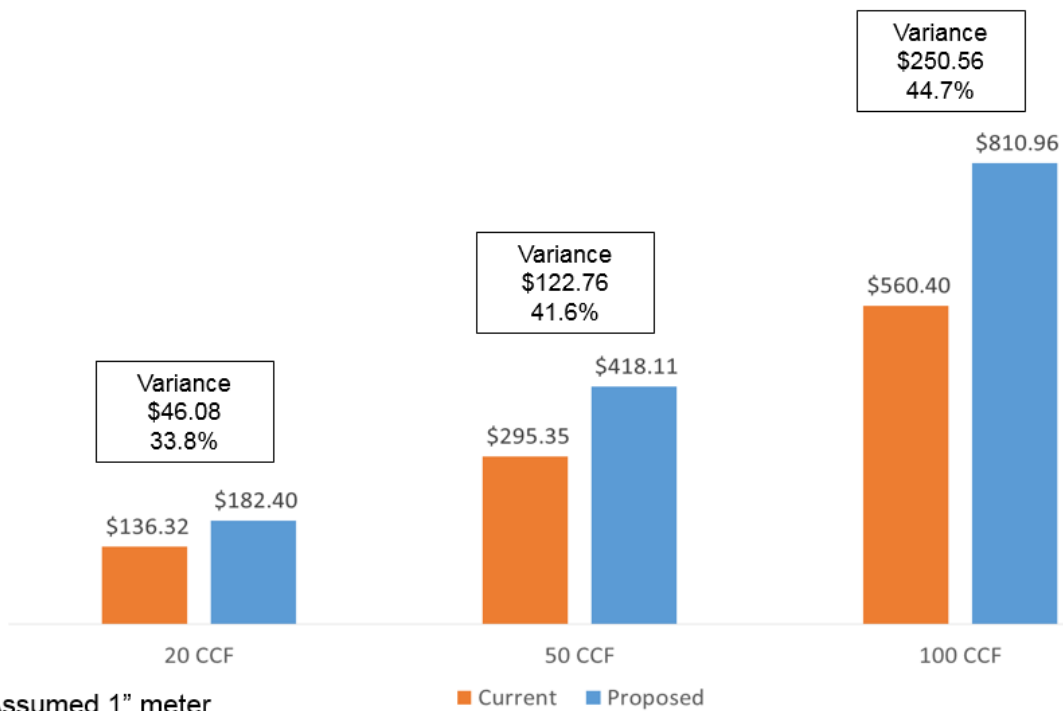
Bills shown net of 10% on time payment discount

**Graphic 5-12 Select Multifamily Customer Quarterly Bill Impact**



Assumed 1" meter  
 Bill shown net 10% on time payment discount

**Graphic 5-13 Select Water Only Customer Quarterly Bill Impact**



Assumed 1" meter  
 Bill shown net 10% on time payment discount

## 5.4 FOOTING DRAIN DISCONNECTION CONSIDERATIONS

The City has a large number of properties that have direct connections between their stormwater management systems (footing drains) and the City's sanitary sewer system. With this service configuration, stormwater is contributed to the sanitary sewer system and is ultimately treated by the wastewater treatment plant. There are an estimated 15,000 homes connected to the sanitary sewer system, recognizing that the City has already disconnected 2,000 homes via its footing drain disconnection program. As part of the community discussion relative to footing drains, it was requested that it be considered in the context of the Study per the SSWEE Citizens Advisory Committee.

In reviewing the issue, several key challenges emerged in regards to equity, data, and precedent. With regard to equity, a customer that is now disconnected as a result of the City's program is no different to the Utility than a customer that was never connected by a footing drain. This paradigm makes providing a credit to a disconnecting customer problematic from an equity standpoint. In reviewing the practices of other municipalities (both locally and more broadly), no precedent could be found for crediting disconnected customers or billing connected customers for the additional volume coming to the utility from their footing drains (likely because the volume cannot be specifically measured). Additionally, no database exists in which each property's connection status is recorded. As such, this Study recommends that the Utility continue to communicate the benefits of disconnection footing drains from the system, and review alternative methods to support the disconnection program.

## 5.5 AFFORDABILITY

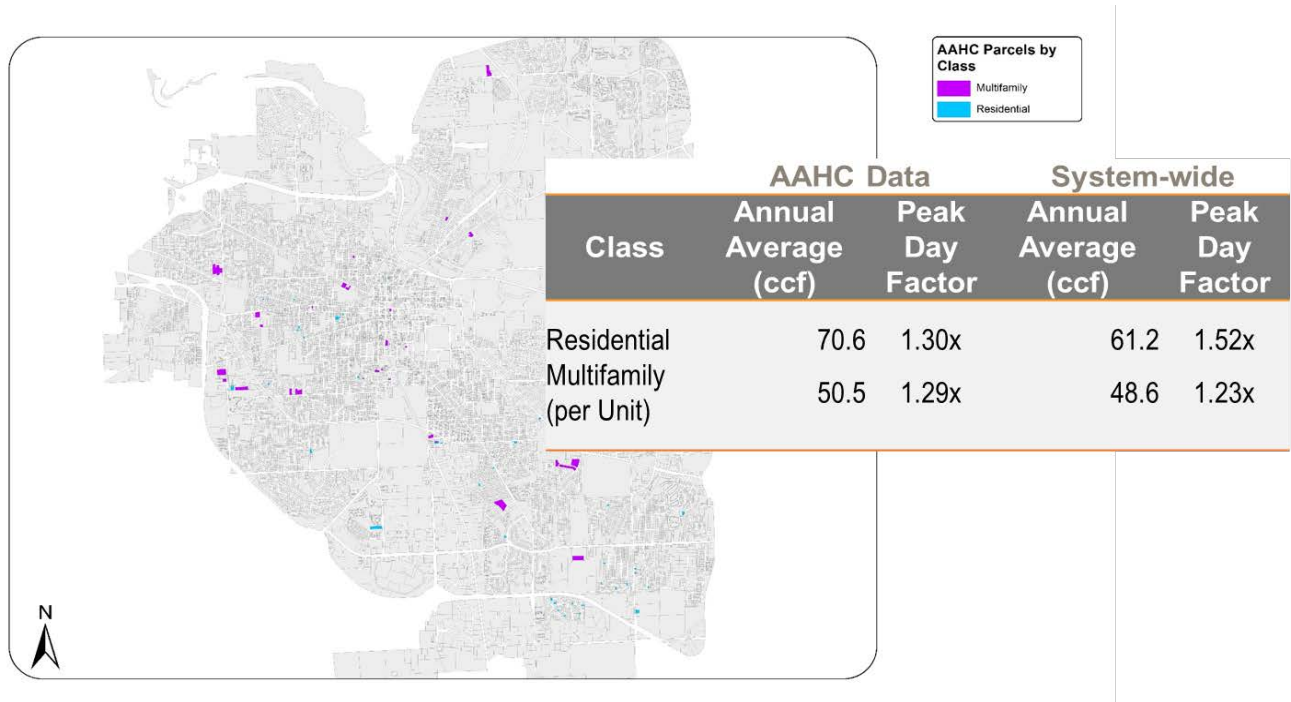
Throughout the Study, City staff and community members expressed a desire to understand and address utility bill affordability challenges to the greatest extent possible. As such, this Study reviewed existing data sources to identify those with potential affordability challenges, understand their water usage, and utilize approaches that address affordability to the extent possible within a cost of service framework.

The Study utilized the Utility's billing data and the Ann Arbor Housing Commissions (AAHC) data in order to identify customers with potential affordability challenges and understand how they utilize the Utility's services. Conceptually the Study identified three household types that could have affordability challenges:

- Small households with fixed income
- Large households with low income
- Multifamily properties with low income tenants

The following graphic displays the results of the data acquisition process that yielded consumption profiles for Residential and Multifamily customers with potential affordability challenges. Of note, the sample of Residential customers reviewed has a very similar annual water use as compared to the Residential class as a whole, but has a notably lower peaking factor (indicative of less seasonal demand for these households).

**Graphic 5-14 Residential Water Usage Analysis – Affordability Challenged Areas**



Utilities are effectively compelled by legal precedent to set utility rates that comport with cost of service results and ensure the proportionality of a customer’s bill with regards to their usage of the system. The rate setting environment effectively removes the ability of the utility to set rates from anything but a cost to serve perspective. Recognizing this constraint, the Study was able to make changes that would improve affordability. First, in creating a standalone rate class for Multifamily customers based on the cost of service results, the proposed Multifamily water rates are significantly lower than those being paid today. This reduced cost will either directly flow to Multifamily customers if they are individually metered, or flow to the property owner if it is a master-metered complex (thereby potentially stabilizing rental prices).

Second, Residential customers with affordability challenges that have water consumption profiles consistent with the sample presented herein will benefit from the proposed rates that reflect the cost of service. Based on an annual usage amount of 70.6 CCF evenly distributed throughout the year, these customers should only have water consumption in tier 1 and 2. Under the proposed rate structure, these customers can be assured that they are paying rates that are for the “base” cost of the system, and do not include large allocations of system costs driven by seasonal users.

Additional steps to address affordability can and should be taken out side of the rate setting process. It is recommended that the issue be studied in more detail to understand the number of customers who are challenged. Other actions for consideration include continued partnerships with others in the community to address the issue in an organized fashion and maximize existing resources. Customer service could also provide a key linkage in this effort by proactively providing resources when contact is made with customers have affordability challenges. If existing community resources are found to be inadequate to meet the identified need, additional non-utility funding sources could be utilized.

**Disclaimer**

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*In preparing this report, Stantec utilized information and data obtained from the City of Ann Arbor or public and/or industry sources. Stantec has relied on the information and data without independent verification, except only to the extent such verification is expressly described in this document. Any projections of future conditions presented in the document are not intended as predictions, as there may be differences between forecasted and actual results, and those differences may be material.*

*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 City of Ann Arbor 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 A1: REVENUE SUFFICIENCY ANALYSIS SUPPORTING SCHEDULES - WATER

- Schedule 1 Assumptions
- Schedule 2 Beginning Fund Balances
- Schedule 3 Capital Improvement Program
- Schedule 4 Projection of Cash Inflows
- Schedule 5 Projection of Cash Outflows
- Schedule 6 Cost Escalation Factors
- Schedule 7 Pro Forma
- Schedule 8 Capital Projects Funding Summary
- Schedule 9 Funding Summary by Fund
- Schedule 10 Long-Term Borrowing Projections
- Schedule 11 FAMS-XL Control Panel



Schedule 1. Assumptions

<b>Assumptions</b>	<b>Schedule 1</b>										
	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<b><u>Annual Water System Growth:</u></b>											
Total Equivalent Residential Units	51,394	51,394	51,894	52,394	52,394	52,394	52,394	52,394	52,394	52,394	52,394
Growth in Accounts <sup>1</sup>	0	0	500	500	0	0	0	0	0	0	0
% Increase in Accounts	0.00%	0.00%	0.97%	0.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume (CCF)	5,808,023	5,741,559	5,704,356	5,667,557	5,603,698	5,540,891	5,479,108	5,418,326	5,358,521	5,299,668	5,241,745
Growth in Volume		(66,465)	(58,891)	(56,937)	(55,050)	(53,228)	(51,468)	(49,769)	(48,129)	(46,544)	(45,014)
% Increase in Volume		-1.14%	-0.65%	-0.65%	-1.13%	-1.12%	-1.12%	-1.11%	-1.10%	-1.10%	-1.09%
<b>Capital Recovery Charge</b>	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274	\$ 5,274
<b><u>Capital Spending:</u></b>											
Annual Capital Spending Execution %	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Annual CIP Escalation %	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%
<b><u>Interest Earning Rate on Fund Balances</u></b>	1.00%	1.25%	1.50%	1.75%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%

(1) Growth in FY 2018 & FY 2019 is representative of staff's expectations for new developments connections

**Beginning Balances as of June 30, 2016**

**Schedule 2**

	Revenue Fund	Restricted Reserves	Equipment Replacement Fund
<b>CURRENT UNRESTRICTED ASSETS</b>			
Cash and Cash Equivalents	\$ 3,526,111	-	-
Equity in pooled cash and investments	28,123,400	-	-
Accounts Receivable	4,870,181	-	-
Special assessments	13,540	-	-
Improvement charges	16,626	-	-
Taxes receivable	26,829	-	-
Due from other governments	4,381,416	-	-
<b>TOTAL ASSETS</b>	<b>40,958,103</b>	-	-
Less: Accounts Payable	(2,331,069)	-	-
Less: Accrued liabilities	(296,503)	-	-
Less: Accrued interest payable	(207,372)	-	-
Less: Deposits	(157,069)	-	-
Less: Bonds payable, current	-	-	-
Less: Compensated absences, current	(367,284)	-	-
Less: Accrued Compensation Time	-	-	-
<b>CALCULATED FUND BALANCE (ASSETS - LIABILITIES)</b>	<b>37,598,806</b>	-	-
Plus/(Less): Equipment Replacement Fund Balance	(10,912,529)	-	10,912,529
Plus/(Less): Debt Service Reserve	(3,525,661)	3,525,661	-
Plus/(Less): Deferred Resources	(280,400)	-	-
<b>NET UNRESTRICTED FUND BALANCE</b>	<b>22,880,216</b>	<b>3,525,661</b>	<b>10,912,529</b>
Funds Encumbered or Reserved for Projects not in the CIP	-	-	-
<b>AVAILABLE FUND BALANCE</b>	<b>\$ 22,880,216</b>	<b>\$ 3,525,661</b>	<b>\$ 10,912,529</b>
<b>Total Available Funds</b>	<b>\$ 37,318,406</b>		

Source: FY 2017 Balance Sheet Listings

Schedule 3. Capital Improvement Program

Capital Improvement Program

Schedule 3

Project	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
2000 South Industrial Site Evaluation	\$ -	-	-	75,000	-	-	-	-	-	-	-
8th St (Liberty to Jefferson) Water Main	\$ -	-	-	-	-	-	-	400,000	-	-	-
Ann (First to Main) Water Main Upsizing	\$ -	-	-	-	120,000	180,000	-	-	-	-	-
Ann (Glen to Zina Pitcher) Water Main Replacement	\$ -	-	-	-	-	132,000	168,000	-	-	-	-
Ann (Observatory to Zina Pitcher) Water Main Relocation	\$ -	-	-	-	-	-	-	-	1,000,000	-	-
Ann Arbor Railroad Water Main Bore	\$ -	-	-	-	-	-	-	-	-	-	160,000
Arbordale St, Sherwood St and Sherwood Ct Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	1,500,000
Arlington (Geddes to Heatherway) Water Main Improvements	\$ -	-	-	-	-	-	-	-	-	1,100,000	-
Baldwin (Washtenaw to Wells) Water Main Replacement	\$ -	-	-	440,000	660,000	-	-	-	-	-	-
Barton (Northside to Pontiac Trail) Water Main Replacement	\$ -	-	-	178,000	222,000	-	-	-	-	-	-
Brd Rd Water RPZ Valve Replacement & Redundant Valve Addition	\$ -	-	-	-	-	200,000	-	-	-	-	-
Broadway (Baits to Jones) Water Main Replacement	\$ -	-	-	440,000	660,000	-	-	-	-	-	-
Brooks & Mktwood Water Main Replacement	\$ -	-	-	-	-	-	442,000	558,000	-	-	-
Brookwood (White to Packard) Water Main Replacement	\$ -	165,000	125,000	-	-	-	-	-	-	-	-
Buchoiz Ct Water Main Replacement	\$ -	-	140,000	-	-	-	-	-	-	-	-
Calvin Street Water Extension	\$ -	-	-	-	-	-	-	-	625,000	-	-
Cedar Bend (Lower) Water Main Replacement	\$ -	-	89,000	111,000	-	-	-	-	-	-	-
Cedar Bend (Upper) Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	740,000
Chaucer, Ascot, & Wembley Water Main Replacement	\$ -	-	-	-	-	531,000	669,000	-	-	-	-
Church (Geddes to S University) Water Main Upsizing	\$ -	-	-	-	-	-	221,000	279,000	-	-	-
Creal Cres., Creal Ct., Helen St., & Argyle Cres. Water Main Replacement	\$ -	-	-	-	-	-	-	-	800,000	800,000	-
Crest/Buena Vista/West Washington Water Main Replacements	\$ -	684,000	456,000	-	-	-	-	-	-	-	-
Dams: Barton Dam Embankment Rehabilitation 50% general fund obligation	\$ -	60,000	20,000	125,000	800,000	-	-	-	-	-	-
Dams: Barton Dam Coating and Structural Steel Repairs- 50% general fund	\$ -	-	25,000	375,000	-	-	-	-	-	-	-
Dams: Barton Dam Concrete Repair	\$ -	-	-	50,000	350,000	-	-	-	-	-	-
Dams: Barton Pond Early Warning System	\$ -	-	25,000	300,000	-	-	-	-	-	-	-
Detroit Street Brick Rd Water Main Replacement	\$ -	-	-	-	-	-	220,000	270,000	-	-	-
Dicken Drive Looping Water Main	\$ -	-	-	-	-	-	-	-	-	-	292,000
Division Ave (Hoover to Madison) Water Main Replacement	\$ -	-	-	337,000	423,000	-	-	-	-	-	-
Dover Place/Riverview Water Main	\$ -	337,000	423,000	-	-	-	-	-	-	-	-
Dunmore,Waverly, & Weldon Water Main Replacement	\$ -	-	310,000	390,000	-	-	-	-	-	-	-
E University (619 E University to Monroe) Water Main Upsizing	\$ -	-	-	-	-	-	8,000	92,000	-	-	-
Eisenhower Parkway (Packard to Stone School) Water Main	\$ -	-	-	-	-	-	-	275,000	-	-	-
Fifth Ave (515 N Fifth to Catherine) Water Main Upsizing	\$ -	472,000	-	-	-	-	-	-	-	-	-
Fifth Ave (Jefferson to Packard) Water Main Upsizing	\$ -	-	-	-	100,000	-	-	-	-	-	-
Geddes Ave (Church to Highland) Water Main Replacement	\$ -	-	-	-	-	515,000	653,000	-	-	-	-
Geddes Road (Huron Pkwy to High Orchard Dr) Water Main Replacement	\$ -	-	-	-	-	-	820,400	561,200	-	-	-
Glendaloch Rd (Glendaloch Cir to Londonderry) Water Main Replacement	\$ -	-	-	-	-	-	200,000	-	-	-	-
Greenview (Stadium to Scio Church) Water Main Replacement	\$ -	-	-	-	-	-	485,000	615,000	-	-	-
Hampshire Rd (Canterbury to Cranbrook) Water Main Replacement	\$ -	-	-	-	-	405,000	595,000	-	-	-	-
Harding (Morton to Wallingford) Water Main Construction	\$ -	-	-	-	-	-	-	150,000	-	-	-
Hatcher Cres., Saunders Cres., & Cooley Ave Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	1,000,000
Heatherway (Arlington to Geddes) Water Main Replacement	\$ -	-	-	-	350,000	-	-	-	-	-	-
Hill St (Adams to Fifth) Water Main Upsizing	\$ -	500,000	-	-	-	-	-	-	-	-	-
Hill St (Fifth to State) Water Main Upsizing	\$ -	-	-	-	-	-	400,000	400,000	-	-	-
Hoover (Main to State) Water Main Upsizing	\$ -	-	400,000	600,000	-	-	-	-	-	-	-
Horman Ct Water Main Replacement	\$ -	165,000	-	-	-	-	-	-	-	-	-
Hubbard (Murlin to 600' West) Water Main Replacement	\$ -	-	300,000	-	-	-	-	-	-	-	-
Ivydale Ave, Ivywood Dr and Peppermill Way Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	500,000	500,000
Leak Detection Survey-Project was eliminated in CIP	\$ -	-	-	-	-	-	-	-	-	-	-
Liberty (318 W Liberty to Main St) Water Main Replacement	\$ -	488,000	-	-	-	-	-	-	-	-	-
Liberty (Crest to Seventh) Steel Water Main Replacement	\$ -	-	-	711,000	879,000	-	-	-	-	-	-
Longshore, Indianola, Ottawa, Argo & Amherst Water Main Replacement	\$ -	1,350,000	1,350,000	-	-	-	-	-	-	-	-
Lutz/Ebenwhite/Elder/Crest Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	903,000	-	903,000
Madison (Soule to end) Water Main Replacement	\$ -	-	-	-	-	-	-	900,000	-	-	-
Madison Place Looping Water Main	\$ -	-	-	-	-	-	-	250,000	-	-	-
Main St (Huron to RR Bridge) Water Main Replacement	\$ -	-	-	-	-	-	-	-	900,000	900,000	-
Main St (RR Bridge to Huronview Blvd) Water Main Upsizing	\$ -	-	-	-	-	-	-	-	-	-	-
Main St (William to Huron) Water Main Replacement	\$ -	-	-	442,000	558,000	-	-	-	-	-	-
Maxwell, Wakefield, & Lutz Water Main Replacement	\$ -	360,000	-	-	-	-	-	-	-	-	-
Maxwell, Wakefield, & Lutz Water Main Replacement	\$ -	75,000	-	-	-	-	-	-	-	-	-
Maynard St (Nickels Arcade to Liberty) Watermain Replacement	\$ -	-	100,000	-	-	-	-	-	-	-	-
Medford (Manchester to Dorchester & Needham to St. Frances) Water Main	\$ -	-	-	-	-	440,000	660,000	-	-	-	-
Monroe (State and Packard Area) Water Main Upsizing	\$ -	-	-	-	160,000	-	-	-	-	-	-
Mosely (Main to 3rd), 3rd (Mosley to Madison) & Wilder Pl Water Main Upsizing	\$ -	-	330,000	420,000	-	-	-	-	-	-	-

Schedule 3. Capital Improvement Program

<u>Project</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Needham, Medford, Buckingham Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	925,000	925,000
Nixon (Traver to Plymouth) Water Main Upsizing	\$ -	-	-	-	-	-	-	-	-	1,150,000	1,150,000
North University Court Water Main	\$ -	-	-	-	-	-	-	235,000	-	-	-
Northside STEAM to Barton Water Main Connection	\$ -	-	-	-	-	-	-	-	-	-	-
Page Ave (King George south to end) Water Main Replacement	\$ -	-	225,000	75,000	-	-	-	-	-	-	-
Pauline (Stadium to Seventh) Water Main Replacement	\$ -	558,000	842,000	-	-	-	-	-	-	-	-
Platt (S of Oakwood to S of Williamsburg) Water Main Replacement	\$ -	-	-	-	-	760,000	1,140,000	-	-	-	-
Plymouth and Green Intersection Water Main Upgrades	\$ -	267,000	-	-	-	-	-	-	-	-	-
Plymouth Road (Georgetown Blvd to Green Rd) Water Main Replacement	\$ -	-	620,000	780,000	-	-	-	-	-	-	-
Pontiac Trail Water Main Extension	\$ -	-	-	-	-	-	-	450,000	-	-	-
Pontiac, Swift, Wight, New Water Mains	\$ -	-	-	-	310,000	390,000	-	-	-	-	-
Prairie St Water Main Replacement	\$ -	-	-	-	-	-	-	900,000	-	-	-
Provincial (Arlington to Fairlane) Water Main Replacement	\$ -	-	89,000	111,000	-	-	-	-	-	-	-
Scio Church (Winsted to Welch) and Waltham to Covington Consolidation	\$ -	-	-	-	150,000	-	-	-	-	-	-
Seventh (Potter to Lutz) Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	-	-	-
Seventh (Scio Church to Greenview) Water Main Replacement	\$ -	-	221,000	279,000	-	-	-	-	-	-	-
Soule (Liberty to Eberwhite School) Water Main Replacement	\$ -	-	-	-	-	-	-	750,000	-	-	-
South Boulevard Water Main (Packard to Dead End)	\$ -	-	-	250,000	-	-	-	-	-	-	-
South University (E Univ. to Washtenaw) Water Main Service Transfers	\$ -	-	-	-	-	-	-	-	-	-	-
South University (State to E University) Water Main Abandonment	\$ -	200,000	-	-	-	-	-	-	-	-	-
Springwater Phase IV Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	1,272,000	-
Springwater Phase V Water Main Replacement	\$ -	-	-	-	-	-	683,000	-	-	-	-
Stadium Blvd (Hutchins to Main) Raw and Domestic Water Mains	\$ -	-	-	-	-	-	1,550,000	1,000,000	1,325,200	-	-
Stadium Blvd (Main to Kipke) Raw and Domestic Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	-
Stadium Service Drive Water Main Replacement	\$ -	-	-	-	310,000	390,000	-	-	-	-	-
State St (at Stimson) Raw Water - Reconstruct Interconnection	\$ -	-	-	-	-	-	225,000	-	-	-	-
State St (Elsworth to I-94) Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	-	-	2,107,000
State St (Granger to Stimpson) Water Main Upsizing	\$ -	-	-	337,000	423,000	-	-	-	-	-	-
State St (I-94 to Eisenhower) Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	2,175,800	-	-
State St (Kingsley to Fuller/Depot) Water Main Replacement	\$ -	-	-	-	-	-	235,000	-	-	-	-
State St (S University to Hill) Water Main Consolidation	\$ -	-	-	-	-	250,000	-	-	-	-	-
State St (UM Tennis Ct Entrance to Railroad ROW) Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	-	2,236,000	-
Summit (Broadway to Main) Water Main Replacement	\$ -	-	-	-	-	-	-	-	1,400,000	-	-
Summit (Daniel to Main) Water Main Replacement	\$ -	-	-	663,000	837,000	-	-	-	-	-	-
Sunrise Ct Water Main Replacement	\$ -	-	-	-	200,000	-	-	-	-	-	-
Sycamore Place Water Main Replacement	\$ -	70,000	105,000	-	-	-	-	-	-	-	-
Traver Rd (Barton to S of Moore) Watermain Upsizing	\$ -	-	-	-	-	970,000	1,230,000	-	-	-	-
Traver Rd PRV (between Barton and Leslie Golf Course)	\$ -	100,000	-	-	-	-	-	-	-	-	-
UM Golf Course (State to Stadium) Raw Water Main 30" Upgrade	\$ -	-	-	-	-	-	-	-	-	-	946,000
Valhalla Drive Water Main	\$ -	-	-	-	-	-	-	325,000	-	-	-
Washington Heights Water Main (East Medical Center south to bend)	\$ -	-	-	-	-	-	-	450,000	-	-	-
Washtenaw Ave (County Farm Park to Platt) Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	1,600,000
Washtenaw Ave (Platt to Huron Parkway) Water Main Replacement	\$ -	-	-	-	-	-	-	750,000	-	-	-
Washtenaw Ave (South University to Wayne Street) Water Main Upgrade	\$ -	-	-	-	399,000	501,000	-	-	-	-	-
Washtenaw Ave (Stadium to County Farm Park) Water Main Replacement	\$ -	-	-	-	-	-	-	-	-	-	-
Washtenaw Ave (Wayne St to North End of Tappen School) Water Main	\$ -	-	-	-	-	-	-	-	1,700,000	-	-
Water Main Annexation Extensions	\$ -	-	-	-	-	-	-	-	-	-	-
Water Main Distribution System Valve Replacements	\$ -	450,000	-	-	-	500,000	-	-	-	-	-
Water Meter and MTU Replacement Program	\$ -	125,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-	-
Westgate Shopping Center Water Main Replacement	\$ -	-	-	-	-	-	-	347,000	-	-	-
WTP: Ammonia Building Improvements	\$ -	40,000	-	-	-	400,000	-	-	-	-	-
WTP: Architectural and Structural Improvements Ph 3	\$ -	-	-	-	150,000	850,000	-	-	-	-	-
WTP: Barton Pump Station 20" Raw Water Suction Piping Replacement	\$ -	120,000	-	-	1,155,000	1,125,000	-	-	-	-	-
WTP: Barton Pump Station Raw Water Transmission Pipe Repairs	\$ -	-	-	250,000	900,000	600,000	-	-	-	-	-
WTP: Barton Pump Station Master Plan	\$ -	-	-	-	-	-	-	-	-	-	-
WTP: Barton Pump Station Valve Replacement	\$ -	100,000	-	562,500	187,500	-	-	-	-	-	-
WTP: Elevated Storage Tank (West High Service District)	\$ -	-	-	-	-	-	-	-	-	225,000	225,000
WTP: Filter Press Improvements	\$ -	-	-	-	150,000	750,000	750,000	-	-	-	-
WTP: Geddes and South East District Control Valve	\$ -	-	50,000	200,000	-	-	-	-	-	-	-
WTP: Gravity and West High Boundary Valve Replacement	\$ -	-	-	-	50,000	350,000	-	-	-	-	-
WTP: HV AC Improvements	\$ -	200,000	-	-	150,000	1,000,000	-	-	-	-	-
WTP: Metering of Pressure Districts	\$ -	-	200,000	600,000	400,000	-	-	-	-	-	-
WTP: Plant 1 Replacement Project	\$ -	-	-	3,600,000	3,600,000	15,970,000	21,630,000	21,630,000	15,970,000	3,600,000	-
WTP: Plant 2 Hydraulic Corrections	\$ -	-	725,000	-	-	-	-	-	-	-	-
WTP: Programmable Logic Controllers Replace. & Dam Security Upgrades	\$ -	250,000	1,650,000	-	-	-	-	-	-	-	-
WTP: Residuals Handling Project	\$ -	500,000	1,500,000	-	-	-	-	-	-	-	-
WTP: South Industrial Tank Roof Repair and Painting	\$ -	550,000	-	-	-	-	-	-	-	-	-
WTP: Steere Farm New Well	\$ -	-	-	-	200,000	100,000	1,600,000	-	-	-	-
WTP: Steere Farm Well Booster Station	\$ -	-	-	-	-	500,000	1,000,000	1,000,000	-	-	-
WTP: Steere Farm Well Pump Engine Replacements	\$ -	1,680,000	-	-	-	-	-	-	-	-	-
WTP: Structural Repairs Project Phase 2	\$ -	125,000	850,000	800,000	-	-	-	-	-	-	-
WTP: Valve Repair Behind Ozone Building	\$ -	-	-	-	50,000	225,000	75,000	-	-	-	-
WTP: Water System Cost of Service Study	\$ -	56,250	-	-	-	-	-	-	-	-	-

Schedule 3. Capital Improvement Program

Project	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
WTP Well Abandonment	\$ -	125,000	-	-	-	-	-	-	-	-	-
Unplanned CIP	\$ -	-	-	-	-	-	-	-	-	-	15,000,000
<b>FY 2017 Projections</b>											
9256 Water Service Line Replacement	\$ 200,000	-	-	-	-	-	-	-	-	-	-
9612 Barton Dam PLC/Piezometer Conv	\$ 20,600	-	-	-	-	-	-	-	-	-	-
9618 WTP Green ATS	\$ 12,535	-	-	-	-	-	-	-	-	-	-
9080 Duncan Street Impr	\$ 272	-	-	-	-	-	-	-	-	-	-
9083 Russel/Redeemer/Russett Wtr Mn	\$ 10,433	-	-	-	-	-	-	-	-	-	-
9086 Springwater Improvements	\$ (2,883)	-	-	-	-	-	-	-	-	-	-
9133 Lawrence-Summit Water Mains	\$ 290	-	-	-	-	-	-	-	-	-	-
9137 Stadium - Hutchins to Kipke	\$ (15,388)	-	-	-	-	-	-	-	-	-	-
9138 Londndry/Devnshr/Belmnt Water Mn	\$ 6,000	-	-	-	-	-	-	-	-	-	-
9177 Observatory St Impr	\$ 775,000	-	-	-	-	-	-	-	-	-	-
9777 Geddes Ave Improvements	\$ 70,000	-	-	-	-	-	-	-	-	-	-
9828 Miller Ave - Maple to Newport	\$ 246	-	-	-	-	-	-	-	-	-	-
9867 Stone School Road Improvements	\$ (650,000)	-	-	-	-	-	-	-	-	-	-
9874 PontiacTrail Imp-Skydale to M-14	\$ (5,000)	-	-	-	-	-	-	-	-	-	-
9148 Manchester Elev Water Tank Paint	\$ 275,000	-	-	-	-	-	-	-	-	-	-
9149 Steere Farm Well Pump Eng Replce	\$ 1,358,960	-	-	-	-	-	-	-	-	-	-
9150 West High Svc Dstr Ele Sto Tanks	\$ 15,344	-	-	-	-	-	-	-	-	-	-
9672 East High Service VFD Replace	\$ 152,653	-	-	-	-	-	-	-	-	-	-
9137 Stadium - Hutchins to Kipke	\$ 500,000	-	-	-	-	-	-	-	-	-	-
9144 Springwater Sub Impr II	\$ 425,000	-	-	-	-	-	-	-	-	-	-
9169 Ferdon/Wells Storm Sewer	\$ 28,517	-	-	-	-	-	-	-	-	-	-
9195 Division Water Main	\$ 425,000	-	-	-	-	-	-	-	-	-	-
9209 Crest/Buena Vista/Wash & Lib Wtr	\$ 115,000	-	-	-	-	-	-	-	-	-	-
9226 Maxwell Wakefield Lutz Water	\$ 65,000	-	-	-	-	-	-	-	-	-	-
9237 S Main Water Main Ext Completion	\$ 25,000	-	-	-	-	-	-	-	-	-	-
9213 WTP 2017 Residuals Handling	\$ 25,000	-	-	-	-	-	-	-	-	-	-
9215 Barton Dam Embankment Rehab	\$ 5,658	-	-	-	-	-	-	-	-	-	-
9218 SCADA Modernization	\$ 29,269	-	-	-	-	-	-	-	-	-	-
9219 Pre-Treatment Basin Reno	\$ 500	-	-	-	-	-	-	-	-	-	-
9222 Plymouth/Green Water Main	\$ 800,000	-	-	-	-	-	-	-	-	-	-
9229 WTP HV AC Improvements	\$ 35,488	-	-	-	-	-	-	-	-	-	-
9231 WTP S. Industrial TankRoofRepair	\$ 50,000	-	-	-	-	-	-	-	-	-	-
9233 Barton Pump Station V Valve/Pipe R	\$ 210,000	-	-	-	-	-	-	-	-	-	-
9243 S. University Water Main Abandon	\$ 125,000	-	-	-	-	-	-	-	-	-	-
9405 Orchard Hills Water Main	\$ 190,000	-	-	-	-	-	-	-	-	-	-
<b>Total Projects Paid</b>	<b>\$ 5,278,494</b>	<b>\$ 10,172,250</b>	<b>\$ 12,470,000</b>	<b>\$ 15,051,500</b>	<b>\$ 16,153,500</b>	<b>\$ 29,284,000</b>	<b>\$ 34,576,400</b>	<b>\$ 33,270,200</b>	<b>\$ 26,296,000</b>	<b>\$ 13,611,000</b>	<b>\$ 27,048,000</b>
Cumulative Inflation	100%	100%	103%	106%	109%	113%	116%	119%	123%	127%	130%
Inflated Project Amount	\$ 5,278,494	10,172,250	12,844,100	15,968,136	17,651,366	32,959,400	40,083,524	39,726,359	32,340,763	17,242,008	35,291,505
Annual Execution	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Executed Project Amount	\$ 5,278,494	10,172,250	12,844,100	15,968,136	17,651,366	32,959,400	40,083,524	39,726,359	32,340,763	17,242,008	35,291,505

Schedule 4. Projection of Cash Inflows

Projection of Cash Inflows

Schedule 4

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<b>1 Rate Revenue Growth Assumptions:</b>											
2 Growth in Water ERUs	NA	-	500	500	-	-	-	-	-	-	-
3 Assumed Water Rate Increase	NA	2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
<b>4 Rate Revenue:</b>											
5 Volume Rate Revenue	\$ 20,786,605	21,177,479	22,217,557	23,311,635	24,462,570	25,673,374	26,947,219	28,287,445	29,697,572	31,181,306	32,742,551
6 Base Rate Revenue	2,081,166	2,081,166	2,227,498	2,383,898	2,526,932	2,678,548	2,839,261	3,009,616	3,190,193	3,381,605	3,584,501
7 <b>Total Rate Revenue</b>	<b>\$ 22,867,771</b>	<b>\$ 23,258,645</b>	<b>\$ 24,445,055</b>	<b>\$ 25,695,533</b>	<b>\$ 26,989,502</b>	<b>\$ 28,351,922</b>	<b>\$ 29,786,480</b>	<b>\$ 31,297,062</b>	<b>\$ 32,887,765</b>	<b>\$ 34,562,911</b>	<b>\$ 36,327,052</b>
<b>8 Other Revenue:</b>											
9 Organization 8000 - Customer Service Forfeited Discounts	\$ 246,006	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000	230,000
10 Organization 8000 - Customer Service Merch & Jobbing-Field	165,000	174,000	174,000	174,000	174,000	174,000	174,000	174,000	174,000	174,000	174,000
11 Organization 8500 - System Planning Site Plan Review	66,950	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
12 Organization 8000 - Customer Service Merch & Jobbing-Cust Service	60,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000	55,000
13 Organization 8000 - Customer Service Tap Fees	35,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000	70,000
14 Organization 6100 - Public Works Merch & Jobbing-Field	25,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000	38,000
15 Organization 6100 - Public Works Other Rentals	20,655	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000	17,000
16 Organization 8500 - System Planning Preliminary Plan Review	17,000	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500	5,500
17 Organization 4300 - WTP Operation Merch & Jobbing-Water Treat	10,000	1,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
18 <b>Total Other Operating Revenue</b>	<b>\$ 645,611</b>	<b>\$ 665,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>	<b>\$ 674,500</b>
<b>19 Non-Operating Revenue:</b>											
20 Interest Income	\$ 338,396	406,783	437,921	424,229	402,176	380,503	384,559	388,717	392,979	397,347	401,824
21 Organization 8000 - Customer Service NSF Ck Fee	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
22 Organization 6100 - Public Works Miscellaneous	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
23 Organization 8000 - Customer Service Improvement Charges	80,000	-	-	-	-	-	-	-	-	-	-
24 Interest Income - Restricted	36,232	46,509	55,901	65,662	80,404	101,774	139,608	182,922	221,917	246,594	273,208
25 <b>Total Non-Operating Revenue</b>	<b>\$ 461,628</b>	<b>460,291</b>	<b>500,822</b>	<b>496,891</b>	<b>489,580</b>	<b>489,277</b>	<b>531,167</b>	<b>578,639</b>	<b>621,896</b>	<b>650,940</b>	<b>682,032</b>
26 <b>Capital Recovery Charge</b>	<b>\$ -</b>	<b>-</b>	<b>2,637,000</b>	<b>2,637,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
27 <b>Total Non-Operating Revenue</b>	<b>\$ -</b>	<b>-</b>	<b>2,637,000</b>	<b>2,637,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>28 Transfers</b>											
29 Operating Transfers 0043	\$ 688,595	668,867	682,556	682,556	682,556	682,556	682,556	682,556	682,556	682,556	682,556
30 Operating Transfers 0069	195,023	247,131	244,851	244,851	244,851	244,851	244,851	244,851	244,851	244,851	244,851
31 Operating Transfers 0072	186,992	165,541	168,640	168,640	168,640	168,640	168,640	168,640	168,640	168,640	168,640
32 Operating Transfers 0021	73,826	69,317	69,688	69,688	69,688	69,688	69,688	69,688	69,688	69,688	69,688
33 Operating Transfers 0062	71,022	68,320	70,370	70,370	70,370	70,370	70,370	70,370	70,370	70,370	70,370
34 Operating Transfers 0010	60,290	99,876	101,309	101,309	101,309	101,309	101,309	101,309	101,309	101,309	101,309
35 Operating Transfers 0012	49,725	51,267	52,805	52,805	52,805	52,805	52,805	52,805	52,805	52,805	52,805
36 Operating Transfers 0049	42,189	39,418	40,319	40,319	40,319	40,319	40,319	40,319	40,319	40,319	40,319
37 Operating Transfers 0022	19,253	18,356	18,907	18,907	18,907	18,907	18,907	18,907	18,907	18,907	18,907
38 Operating Transfers 0048	8,120	6,885	7,091	7,091	7,091	7,091	7,091	7,091	7,091	7,091	7,091
39 Operating Transfers 0011	7,856	5,927	6,104	6,104	6,104	6,104	6,104	6,104	6,104	6,104	6,104
40 <b>Total Transfers</b>	<b>\$ 1,402,891</b>	<b>1,440,905</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>	<b>1,462,640</b>
41 <b>Total Revenue</b>	<b>\$ 25,377,901</b>	<b>25,825,341</b>	<b>29,720,017</b>	<b>30,966,563</b>	<b>29,616,222</b>	<b>30,978,339</b>	<b>32,454,787</b>	<b>34,012,840</b>	<b>35,646,801</b>	<b>37,350,991</b>	<b>39,146,225</b>

Schedule 5. Projection of Cash Outflows

Projection of Cash Outflows

			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	
<b>Personal Services</b>														
1	Agency 046 - Systems Planning	Organization 8500 - System Planning	Permanent Time Worked \$	317,117	364,014	364,810	373,565	382,905	392,477	402,289	412,346	422,655	433,221	444,052
2	Agency 046 - Systems Planning	Organization 8500 - System Planning	Temporary Pay \$	55,000	31,843	31,843	32,607	33,422	34,258	35,114	35,992	36,892	37,814	38,760
3	Agency 046 - Systems Planning	Organization 8500 - System Planning	Overtime Paid-Permanent \$	500	-	-	-	-	-	-	-	-	-	-
4	Agency 046 - Systems Planning	Organization 8500 - System Planning	Severance Pay \$	-	17,000	-	-	-	-	-	-	-	-	-
5	Agency 046 - Systems Planning	Organization 8500 - System Planning	Annual Sick Leave Payout \$	617	2,936	245	252	259	265	272	279	286	293	300
6	Agency 046 - Systems Planning	Organization 8500 - System Planning	Longevity Pay \$	330	330	330	338	346	355	364	373	382	392	402
7	Agency 046 - Systems Planning	Organization 8500 - System Planning	Benefit Waiver Pay \$	1,874	270	270	278	285	292	299	307	315	323	331
8	Agency 061 - Public Works	Organization 6100 - Public Works	Permanent Time Worked \$	956,697	953,393	962,086	985,176	1,009,805	1,035,051	1,060,927	1,087,450	1,114,636	1,142,502	1,171,065
9	Agency 061 - Public Works	Organization 6100 - Public Works	Temporary Pay \$	17,500	13,406	13,811	14,142	14,496	14,858	15,230	15,611	16,001	16,401	16,811
10	Agency 061 - Public Works	Organization 6100 - Public Works	Overtime Paid-Permanent \$	103,500	101,300	101,600	104,038	106,639	109,305	112,038	114,839	117,710	120,653	123,669
11	Agency 061 - Public Works	Organization 6100 - Public Works	Severance Pay \$	-	10,000	-	-	-	-	-	-	-	-	-
12	Agency 061 - Public Works	Organization 6100 - Public Works	Annual Sick Leave Payout \$	241	248	248	255	262	268	275	282	289	296	304
13	Agency 061 - Public Works	Organization 6100 - Public Works	Longevity Pay \$	6,015	6,246	6,246	6,396	6,556	6,720	6,888	7,060	7,236	7,417	7,603
14	Agency 061 - Public Works	Organization 6100 - Public Works	Benefit Waiver Pay \$	2,252	2,000	2,000	2,060	2,112	2,164	2,218	2,274	2,331	2,389	2,449
15	Agency 070 - Public Services Administration	Organization 1000 - Administration	Permanent Time Worked \$	422,677	465,792	469,092	480,350	492,359	504,668	517,285	530,217	543,472	557,059	570,985
16	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocat	Permanent Time Worked \$	63,750	52,275	52,275	53,530	54,868	56,240	57,646	59,087	60,564	62,078	63,630
17	Agency 070 - Public Services Administration	Organization 1000 - Administration	Annual Sick Leave Payout \$	3,278	3,394	3,394	3,496	3,583	3,673	3,765	3,859	3,955	4,054	4,155
18	Agency 070 - Public Services Administration	Organization 1000 - Administration	Longevity Pay \$	585	585	585	599	614	629	645	661	678	695	712
19	Agency 070 - Public Services Administration	Organization 1000 - Administration	Benefit Waiver Pay \$	1,800	1,800	1,800	1,854	1,900	1,948	1,997	2,046	2,098	2,150	2,204
20	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Permanent Time Worked \$	353,595	406,215	406,215	415,964	426,363	437,022	447,948	459,147	470,625	482,391	494,451
21	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Permanent Time Worked \$	1,210,342	1,252,261	1,278,462	1,309,145	1,341,874	1,375,421	1,409,806	1,445,051	1,481,178	1,518,207	1,556,162
22	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Temporary Pay \$	-	15,000	15,000	15,360	15,744	16,138	16,541	16,955	17,378	17,813	18,258
23	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Temporary Pay \$	31,000	42,400	42,900	43,930	45,028	46,154	47,307	48,490	49,702	50,945	52,218
24	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Overtime Paid-Permanent \$	186,150	131,500	135,470	138,721	142,189	145,744	149,388	153,122	156,950	160,874	164,896
25	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Overtime Paid-Permanent \$	154	-	-	-	-	-	-	-	-	-	-
26	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Severance Pay \$	60,000	-	66,000	67,584	69,274	71,005	72,781	74,600	76,465	78,377	80,336
27	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Annual Sick Leave Payout \$	5,018	3,830	3,830	3,945	4,044	4,145	4,248	4,354	4,463	4,575	4,689
28	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Annual Sick Leave Payout \$	3,365	3,343	3,343	3,443	3,529	3,618	3,708	3,801	3,896	3,993	4,093
29	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Longevity Pay \$	1,650	698	698	715	733	751	770	789	809	829	850
30	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Longevity Pay \$	7,098	9,270	9,276	9,499	9,736	9,979	10,229	10,485	10,747	11,015	11,291
31	Agency 074 - Utilities-Water Treatment	Organization 2400 - WTP Administration	Benefit Waiver Pay \$	2,800	1,523	1,523	1,569	1,608	1,648	1,689	1,732	1,775	1,819	1,865
32	Agency 074 - Utilities-Water Treatment	Organization 4300 - WTP Operation	Benefit Waiver Pay \$	3,007	2,960	2,960	3,049	3,125	3,203	3,283	3,365	3,449	3,536	3,624
33	Agency 078 - Customer Service	Organization 8000 - Customer Service	Permanent Time Worked \$	312,193	325,817	326,961	334,808	343,178	351,758	360,552	369,565	378,805	388,275	397,982
34	Agency 078 - Customer Service	Organization 8000 - Customer Service	Annual Sick Leave Payout \$	1,069	1,098	1,098	1,131	1,169	1,218	1,268	1,318	1,369	1,421	1,474
35	Agency 078 - Customer Service	Organization 8000 - Customer Service	Longevity Pay \$	1,890	2,190	2,190	2,243	2,299	2,356	2,415	2,475	2,537	2,601	2,666
48			GASB	519,312	532,295	545,602	559,242	573,223	587,554	602,243	617,299	632,731	648,550	664,776
49			OPEB	-	1,700,000	1,786,063	1,830,714	1,876,482	1,923,394	1,971,479	2,020,766	2,071,285		
			\$	4,652,376	4,757,232	6,552,163	6,711,785	6,879,580	7,051,569	7,227,858	7,408,555	7,593,769	7,783,613	7,978,203
50	<b>Fixed Operating Cost</b>													
51	Agency 018 - Finance	Organization 1000 - Administration	Bank Service Fees \$	70,000	90,000	90,000	92,700	95,018	97,393	99,828	102,323	104,882	107,504	110,191
52	Agency 046 - Systems Planning	Organization 8500 - System Planning	Equipment Allowance \$	3,073	3,154	3,154	3,230	3,310	3,393	3,478	3,565	3,654	3,745	3,839
53	Agency 046 - Systems Planning	Organization 8500 - System Planning	Professional Services \$	15,000	6,000	6,000	6,144	6,298	6,455	6,616	6,782	6,951	7,125	7,303
54	Agency 046 - Systems Planning	Organization 8500 - System Planning	Telecommunications \$	250	700	700	717	735	753	772	791	811	831	852
55	Agency 046 - Systems Planning	Organization 8500 - System Planning	Rent City Vehicles \$	100	500	500	512	525	538	551	565	579	594	609
56	Agency 046 - Systems Planning	Organization 8500 - System Planning	Fleet Maintenance & Repair \$	1,832	1,445	1,489	1,525	1,563	1,602	1,642	1,683	1,725	1,768	1,812
57	Agency 046 - Systems Planning	Organization 8500 - System Planning	Fleet Fuel \$	1,133	501	550	563	577	592	607	622	637	653	669
58	Agency 046 - Systems Planning	Organization 8500 - System Planning	Fleet Depreciation \$	3,761	3,787	3,787	3,878	3,975	4,074	4,176	4,280	4,387	4,497	4,610
59	Agency 046 - Systems Planning	Organization 8500 - System Planning	Fleet Management \$	207	173	173	177	182	186	191	196	200	205	211
60	Agency 046 - Systems Planning	Organization 8500 - System Planning	Contracted Services \$	15,000	1,000	1,000	1,024	1,050	1,076	1,103	1,130	1,159	1,188	1,217
61	Agency 046 - Systems Planning	Organization 8500 - System Planning	Printing \$	2,500	2,400	400	410	420	430	441	452	463	475	487
62	Agency 046 - Systems Planning	Organization 8500 - System Planning	Software \$	-	400	400	410	420	430	441	452	463	475	487
63	Agency 046 - Systems Planning	Organization 8500 - System Planning	Software Maintenance \$	-	400	400	410	420	430	441	452	463	475	487
64	Agency 046 - Systems Planning	Organization 8500 - System Planning	Conference Training & Travel \$	5,000	5,200	5,278	5,436	5,572	5,712	5,854	6,001	6,151	6,304	6,462
65	Agency 046 - Systems Planning	Organization 8500 - System Planning	Background Check/Drug Sc \$	100	100	100	103	106	108	111	114	117	119	122
66	Agency 046 - Systems Planning	Organization 8500 - System Planning	Postage \$	400	400	400	410	420	430	441	452	463	475	487
67	Agency 046 - Systems Planning	Organization 8500 - System Planning	Uniforms & Accessories \$	50	50	50	51	52	53	54	55	56	57	58
68	Agency 046 - Systems Planning	Organization 8500 - System Planning	Materials & Supplies \$	6,596	1,000	1,000	1,024	1,050	1,076	1,103	1,130	1,159	1,188	1,217
69	Agency 046 - Systems Planning	Organization 8500 - System Planning	Life Insurance \$	794	946	946	969	993	1,018	1,043	1,069	1,096	1,123	1,151
70	Agency 046 - Systems Planning	Organization 8500 - System Planning	Medical Insurance \$	34,999	48,438	52,020	53,268	54,600	55,965	57,364	58,798	60,268	61,775	63,319
71	Agency 046 - Systems Planning	Organization 8500 - System Planning	Disability Insurance \$	1,959	2,176	2,176	2,228	2,284	2,341	2,400	2,460	2,521	2,584	2,649
72	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retiree Health Savings Acci \$	540	1,471	1,471	1,506	1,544	1,583	1,622	1,663	1,704	1,747	1,791
73	Agency 046 - Systems Planning	Organization 8500 - System Planning	Vebs Funding \$	51,266	49,240	49,240	50,422	51,682	52,974	54,299	55,656	57,048	58,474	59,936
74	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retiree Medical Insurance \$	5,857	10,128	10,128	10,371	10,630	10,896	11,169	11,448	11,734	12,027	12,328
75	Agency 046 - Systems Planning	Organization 8500 - System Planning	Workers Comp \$	3,459	3,529	3,529	3,604	3,695	3,787	3,880	3,979	4,078	4,180	4,285
76	Agency 046 - Systems Planning	Organization 8500 - System Planning	Social Security-Employer \$	24,543	28,320	28,320	28,853	29,575	30,314	31,072	31,849	32,645	33,461	34,297
77	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retirement Contribution \$	73,793	84,840	84,403	86,429	88,589	90,804	93,074	95,401	97,786	100,231	102,737
78	Agency 046 - Systems Planning	Organization 8500 - System Planning	Dental Insurance \$	3,509	4,360	4,490	4,598	4,713	4,831	4,951	5,075	5,202	5,332	5,465
79	Agency 046 - Systems Planning	Organization 8500 - System Planning	Optical Insurance \$	448	546	559	572	586	601	616	632	648	664	680
80	Agency 046 - Systems Planning	Organization 8500 - System Planning	Dues & Licenses \$	600	1,148	1,048	1,073	1,100	1,127	1,156	1,185	1,214	1,245	1,276
81	Agency 046 - Systems Planning	Organization 8500 - System Planning	Unemployment Compensa \$	836	1,114	1,114	1,125	1,153	1,182	1,212	1,242	1,273	1,305	1,337
82	Agency 061 - Public Works	Organization 6100 - Public Works	Equipment Allowance \$	4,029	4,148	4,148	4,2							

Schedule 5. Projection of Cash Outflows

86	Agency	061 - Public Works	Organization	6100 - Public Works	Water	\$	1,000	1,000	1,000	1,060	1,087	1,114	1,142	1,170	1,199	1,229	1,260	
87	Agency	061 - Public Works	Organization	6100 - Public Works	Storm Water Runoff	\$	-	4,750	4,885	5,178	5,308	5,440	5,576	5,716	5,859	6,005	6,155	6,305
88	Agency	061 - Public Works	Organization	6100 - Public Works	Telecommunications	\$	2,000	10,500	1,500	1,536	1,574	1,614	1,654	1,695	1,738	1,781	1,826	1,872
89	Agency	061 - Public Works	Organization	6100 - Public Works	Radio Maintenance	\$	1,707	1,205	1,241	1,271	1,303	1,335	1,368	1,403	1,438	1,474	1,511	1,548
90	Agency	061 - Public Works	Organization	6100 - Public Works	Radio System Service Char#	\$	16,607	10,636	10,283	10,530	10,793	11,063	11,339	11,623	11,913	12,211	12,517	12,829
91	Agency	061 - Public Works	Organization	6100 - Public Works	Rent City Vehicles	\$	125,000	42,301	43,570	44,616	45,731	46,874	48,046	49,247	50,479	51,741	53,034	54,354
92	Agency	061 - Public Works	Organization	6100 - Public Works	Fleet Maintenance & Repair	\$	198,548	148,864	153,330	157,010	160,935	164,959	169,083	173,310	177,642	182,083	186,635	191,298
93	Agency	061 - Public Works	Organization	6100 - Public Works	Fleet Fuel	\$	76,726	41,257	45,471	46,562	47,726	48,920	50,143	51,396	52,681	53,998	55,348	56,729
94	Agency	061 - Public Works	Organization	6100 - Public Works	Fleet Management	\$	9,108	7,612	7,612	7,795	7,990	8,189	8,394	8,604	8,819	9,039	9,265	9,496
95	Agency	061 - Public Works	Organization	6100 - Public Works	Contracted Services	\$	679,254	478,250	481,964	493,531	505,869	518,516	531,479	544,766	558,385	572,345	586,653	601,311
96	Agency	061 - Public Works	Organization	6100 - Public Works	Tipping Fees	\$	6,300	6,300	6,300	6,451	6,612	6,778	6,947	7,121	7,299	7,481	7,668	7,858
97	Agency	061 - Public Works	Organization	6100 - Public Works	Software Maintenance	\$	2,500	2,500	2,500	2,560	2,624	2,690	2,757	2,826	2,896	2,969	3,043	3,119
98	Agency	061 - Public Works	Organization	6100 - Public Works	Conference Training & Trav	\$	12,000	6,400	6,400	6,592	6,757	6,926	7,099	7,276	7,458	7,643	7,831	8,021
99	Agency	061 - Public Works	Organization	6100 - Public Works	Educational Reimbursement	\$	1,000	-	-	-	-	-	-	-	-	-	-	-
100	Agency	061 - Public Works	Organization	6100 - Public Works	Advertising	\$	500	200	200	206	211	216	222	227	233	239	245	251
101	Agency	061 - Public Works	Organization	6100 - Public Works	Employee Recognition	\$	700	700	700	717	735	753	772	791	811	831	852	874
102	Agency	061 - Public Works	Organization	6100 - Public Works	Postage	\$	100	50	50	51	52	54	55	57	58	59	61	62
103	Agency	061 - Public Works	Organization	6100 - Public Works	Uniforms & Accessories	\$	2,250	5,925	5,925	6,067	6,219	6,374	6,534	6,697	6,864	7,036	7,212	7,391
104	Agency	061 - Public Works	Organization	6100 - Public Works	Materials & Supplies	\$	141,250	262,258	296,500	303,616	311,206	318,987	326,961	335,135	343,514	352,101	360,904	370,034
105	Agency	061 - Public Works	Organization	6100 - Public Works	Life Insurance	\$	573	1,052	1,052	1,077	1,104	1,132	1,160	1,189	1,219	1,249	1,281	1,313
106	Agency	061 - Public Works	Organization	6100 - Public Works	Medical Insurance	\$	205,720	217,028	233,687	239,295	245,278	251,410	257,695	264,137	270,741	277,500	284,447	291,578
107	Agency	061 - Public Works	Organization	6100 - Public Works	Disability Insurance	\$	534	534	534	547	560	574	589	604	619	634	650	666
108	Agency	061 - Public Works	Organization	6100 - Public Works	Retiree Health Savings Acct	\$	4,076	5,530	5,530	5,663	5,804	5,949	6,098	6,251	6,407	6,567	6,731	6,898
109	Agency	061 - Public Works	Organization	6100 - Public Works	Vebs Funding	\$	159,661	151,852	151,852	155,496	159,384	163,368	167,453	171,639	175,930	180,328	184,836	189,454
110	Agency	061 - Public Works	Organization	6100 - Public Works	Retiree Medical Insurance	\$	185,478	182,304	182,304	186,679	191,346	196,130	201,033	206,059	211,210	216,494	221,903	227,438
111	Agency	061 - Public Works	Organization	6100 - Public Works	Workers Comp	\$	30,448	32,094	32,423	33,201	34,031	34,882	35,754	36,648	37,564	38,503	39,466	40,453
112	Agency	061 - Public Works	Organization	6100 - Public Works	Social Security-Employer	\$	73,562	73,290	73,959	75,734	77,627	79,568	81,557	83,596	85,686	87,828	89,024	90,224
113	Agency	061 - Public Works	Organization	6100 - Public Works	Retirement Contribution	\$	223,407	221,735	223,745	229,115	234,843	240,714	246,732	252,900	259,222	265,703	272,346	279,153
114	Agency	061 - Public Works	Organization	6100 - Public Works	Insurance Premiums	\$	7,239	10,541	10,541	10,794	11,064	11,340	11,624	11,915	12,212	12,518	12,831	13,151
115	Agency	061 - Public Works	Organization	6100 - Public Works	Dental Insurance	\$	16,568	17,146	17,658	18,082	18,534	18,997	19,472	19,959	20,458	20,969	21,494	22,033
116	Agency	061 - Public Works	Organization	6100 - Public Works	Optical Insurance	\$	1,985	2,005	2,065	2,115	2,167	2,222	2,277	2,334	2,392	2,452	2,514	2,578
117	Agency	061 - Public Works	Organization	6100 - Public Works	Dues & Licenses	\$	3,000	3,275	3,275	3,354	3,437	3,523	3,611	3,702	3,794	3,889	3,986	4,084
118	Agency	061 - Public Works	Organization	6100 - Public Works	Unemployment Compensa	\$	3,222	3,666	3,666	3,703	3,795	3,890	3,987	4,087	4,189	4,294	4,401	4,510
119	Agency	061 - Public Works	Organization	6100 - Public Works	Repair Parts Outside Repairs	\$	7,000	7,000	7,000	7,168	7,347	7,531	7,719	7,912	8,110	8,313	8,520	8,731
120	Agency	070 - Public Services Administration	Organization	1000 - Administration	Equipment Allowance	\$	516	906	906	928	951	975	999	1,024	1,050	1,076	1,103	1,130
121	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Equipment Allowance	\$	585	468	468	478	491	503	516	529	542	556	570	584
122	Agency	070 - Public Services Administration	Organization	1000 - Administration	Professional Services	\$	172,500	5,000	5,000	5,120	5,248	5,379	5,514	5,652	5,793	5,938	6,086	6,236
123	Agency	070 - Public Services Administration	Organization	1000 - Administration	Telecommunications	\$	2,500	2,700	2,700	2,765	2,834	2,905	2,977	3,052	3,128	3,206	3,286	
124	Agency	070 - Public Services Administration	Organization	1000 - Administration	Equipment Maintenance	\$	250	250	250	256	262	269	276	283	290	297	304	312
125	Agency	070 - Public Services Administration	Organization	1000 - Administration	Rent City Vehicles	\$	425	300	300	307	315	323	331	339	348	356	365	374
126	Agency	070 - Public Services Administration	Organization	1000 - Administration	Rent Outside Vehicles/Mile	\$	1,000	100	1,000	1,024	1,050	1,076	1,103	1,130	1,159	1,188	1,217	
127	Agency	070 - Public Services Administration	Organization	1000 - Administration	Contracted Services	\$	26,000	29,000	29,000	29,696	30,438	31,199	31,979	32,779	33,598	34,438	35,299	
128	Agency	070 - Public Services Administration	Organization	1000 - Administration	Printing	\$	6,800	1,300	1,300	1,331	1,364	1,399	1,434	1,469	1,506	1,544	1,582	
129	Agency	070 - Public Services Administration	Organization	1000 - Administration	Rent	\$	250	250	250	256	262	269	276	283	290	297	304	
130	Agency	070 - Public Services Administration	Organization	1000 - Administration	Conference Training & Trav	\$	8,500	7,500	7,500	7,725	7,918	8,116	8,319	8,527	8,740	8,959	9,183	
131	Agency	070 - Public Services Administration	Organization	1000 - Administration	Educational Reimbursement	\$	6,000	5,000	5,000	5,120	5,248	5,379	5,514	5,652	5,793	5,938	6,086	
132	Agency	070 - Public Services Administration	Organization	1000 - Administration	Advertising	\$	5,500	1,000	1,000	1,030	1,056	1,082	1,109	1,137	1,165	1,194	1,224	
133	Agency	070 - Public Services Administration	Organization	1000 - Administration	Employee Recognition	\$	400	400	400	410	420	430	441	452	463	475	487	
134	Agency	070 - Public Services Administration	Organization	1000 - Administration	Postage	\$	3,050	550	550	563	577	592	607	622	637	653	669	
135	Agency	070 - Public Services Administration	Organization	1000 - Administration	Materials & Supplies	\$	11,500	8,500	8,500	8,704	8,922	9,145	9,373	9,608	9,848	10,094	10,346	
136	Agency	070 - Public Services Administration	Organization	1000 - Administration	Paying Agent Fee	\$	250	250	250	256	262	269	276	283	290	297	304	
137	Agency	070 - Public Services Administration	Organization	1000 - Administration	Life Insurance	\$	878	1,157	1,157	1,185	1,214	1,245	1,276	1,308	1,340	1,374	1,408	
138	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Life Insurance	\$	150	120	120	123	126	129	132	136	139	143	146	
139	Agency	070 - Public Services Administration	Organization	1000 - Administration	Medical Insurance	\$	51,252	60,533	65,079	66,641	68,307	70,015	71,765	73,559	75,398	77,283	79,215	
140	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Medical Insurance	\$	10,716	8,810	9,467	9,694	9,937	10,185	10,440	10,701	10,968	11,242	11,523	
141	Agency	070 - Public Services Administration	Organization	1000 - Administration	Disability Insurance	\$	2,091	2,340	2,340	2,396	2,456	2,517	2,580	2,645	2,711	2,779	2,848	
142	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Disability Insurance	\$	373	299	299	306	314	322	330	338	346	355	364	
143	Agency	070 - Public Services Administration	Organization	1000 - Administration	Retiree Health Savings Acct	\$	1,536	1,951	1,951	1,998	2,048	2,099	2,151	2,205	2,260	2,317	2,375	
144	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Retiree Health Savings Acct	\$	623	498	498	510	523	536	549	563	577	591	606	
145	Agency	070 - Public Services Administration	Organization	1000 - Administration	Vebs Funding	\$	39,984	44,475	44,475	45,542	46,681	47,848	49,044	50,270	51,527	52,815	54,136	
146	Agency	070 - Public Services Administration	Organization	1000 - Administration	Retiree Medical Insurance	\$	29,286	30,384	30,384	31,113	31,891	32,688	33,506	34,343	35,202	36,082	36,984	
147	Agency	070 - Public Services Administration	Organization	1000 - Administration	Workers Comp	\$	3,425	3,610	3,610	3,706	3,799	3,893	3,991	4,091	4,193	4,298	4,405	
148	Agency	070 - Public Services Administration	Organization	8501 - Utilities MY Personnel Allocat	Workers Comp	\$	431	353	353	361	371	38						



Schedule 5. Projection of Cash Outflows

171	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Telecommunications	\$ 14,500	14,000	14,000	14,336	14,694	15,062	15,438	15,824	16,220	16,625	17,041
172	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Building Maintenance	\$ 25,000	30,000	40,000	41,200	42,230	43,286	44,368	45,477	46,614	47,779	48,974
173	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Equipment Maintenance	\$ 500	500	500	512	525	538	551	565	579	594	609
174	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Equipment Maintenance	\$ 132,500	76,900	86,900	88,966	91,210	93,490	95,822	98,223	100,679	103,196	105,776
175	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Radio Maintenance	\$ 731	151	156	160	164	168	172	176	180	185	190
176	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Radio System Service Chrg	\$ 7,117	16,094	15,007	15,367	15,751	16,145	16,549	16,962	17,387	17,821	18,267
177	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Rent City Vehicles	\$ 11,800	-	-	-	-	-	-	-	-	-	-
178	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Rent Outside Vehicles/Mile	\$ 2,000	500	500	512	525	538	551	565	579	594	609
179	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Rent Outside Vehicles/Mile	\$ 550	3,733	2,368	2,425	2,485	2,548	2,611	2,677	2,743	2,812	2,882
180	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Fleet Maintenance & Repair	\$ 15,753	32,034	32,995	33,787	34,632	35,497	36,385	37,294	38,227	39,182	40,162
181	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Fleet Fuel	\$ 10,772	7,306	8,015	8,207	8,413	8,623	8,838	9,059	9,286	9,518	9,756
182	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Fleet Depreciation	\$ 24,777	32,546	32,546	33,327	34,160	35,014	35,890	36,787	37,707	38,649	39,615
183	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Fleet Management	\$ 4,761	2,941	2,941	3,022	3,107	3,194	3,283	3,374	3,467	3,562	3,659
184	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Contracted Services	\$ 500	500	500	512	525	538	551	565	579	594	609
185	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Contracted Services	\$ 361,500	310,000	325,000	332,800	341,200	349,648	358,389	367,349	376,533	385,946	395,595
186	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Tipping Fees	\$ 17,000	24,487	25,221	25,826	26,472	27,134	27,812	28,507	29,220	29,951	30,699
187	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Printing	\$ 1,500	1,500	1,500	1,536	1,574	1,614	1,654	1,695	1,738	1,781	1,826
188	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Software Maintenance	\$ 31,000	31,000	31,000	31,744	32,538	33,351	34,185	35,039	35,915	36,813	37,734
189	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Conference Training & Trav	\$ 20,000	15,000	15,000	15,450	15,836	16,232	16,638	17,054	17,480	17,917	18,365
190	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Conference Training & Trav	\$ 29,000	20,500	20,500	21,115	21,643	22,184	22,739	23,307	23,890	24,487	25,099
191	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Educational Reimbursemen	\$ 2,000	2,000	2,000	2,048	2,099	2,152	2,205	2,261	2,317	2,375	2,434
192	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Advertising	\$ 500	-	-	-	-	-	-	-	-	-	-
193	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Governmental Services	\$ 1,000	8,500	8,500	8,704	8,922	9,145	9,373	9,608	9,848	10,094	10,346
194	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Employee Recognition	\$ 1,550	1,550	1,550	1,587	1,627	1,668	1,709	1,752	1,796	1,841	1,887
195	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Postage	\$ 2,500	1,500	1,500	1,536	1,574	1,614	1,654	1,695	1,738	1,781	1,826
196	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Postage	\$ 2,500	1,900	1,900	1,946	1,994	2,044	2,095	2,148	2,202	2,256	2,313
197	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Uniforms & Accessories	\$ 14,000	13,200	13,200	13,517	13,855	14,201	14,556	14,920	15,293	15,675	16,067
198	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Materials & Supplies	\$ 10,000	10,000	11,000	11,264	11,546	11,834	12,130	12,433	12,744	13,063	13,389
199	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Materials & Supplies	\$ 267,000	266,173	239,490	245,238	251,369	257,653	264,094	270,697	277,464	284,401	291,511
200	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Safety Related supplies	\$ -	200	200	205	210	215	221	226	232	238	243
201	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Safety Related supplies	\$ 3,500	5,000	5,000	5,120	5,248	5,379	5,514	5,652	5,793	5,938	6,086
202	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Life Insurance	\$ 616	939	943	966	990	1,015	1,040	1,066	1,092	1,120	1,148
203	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Life Insurance	\$ 446	1,073	1,073	1,099	1,126	1,154	1,183	1,213	1,243	1,274	1,306
204	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Medical Insurance	\$ 40,935	60,200	64,690	66,243	67,899	69,596	71,336	73,119	74,947	76,821	78,742
205	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Medical Insurance	\$ 259,034	252,659	274,625	281,216	288,246	295,453	302,839	310,410	318,170	326,124	334,277
206	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Disability Insurance	\$ 1,444	2,042	2,042	2,091	2,143	2,197	2,252	2,308	2,366	2,425	2,486
207	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Retiree Health Savings Acct	\$ 830	1,826	1,826	1,870	1,917	1,964	2,014	2,064	2,116	2,168	2,223
208	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Retiree Health Savings Acct	\$ 9,002	8,692	8,908	9,122	9,350	9,584	9,823	10,069	10,320	10,578	10,843
209	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Vebe Funding	\$ 48,559	42,506	42,506	43,526	44,614	45,730	46,873	48,045	49,246	50,477	51,739
210	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Vebe Funding	\$ 132,290	156,935	155,665	159,401	163,386	167,471	171,657	175,949	180,348	184,856	189,478
211	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Retiree Medical Insurance	\$ 302,622	313,968	313,968	321,503	329,541	337,779	346,224	354,879	363,751	372,845	382,166
212	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Workers Comp	\$ 5,305	6,333	6,333	6,485	6,647	6,813	6,984	7,158	7,337	7,521	7,709
213	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Workers Comp	\$ 19,380	20,192	20,384	20,873	21,395	21,930	22,478	23,040	23,616	24,207	24,812
214	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Social Security-Employer	\$ 27,540	31,590	31,590	32,348	33,157	33,986	34,835	35,706	36,599	37,514	38,452
215	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Social Security-Employer	\$ 92,978	96,234	98,241	100,599	103,114	105,692	108,334	111,042	113,818	116,664	119,580
216	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Retirement Contribution	\$ 83,580	94,881	94,881	97,158	99,587	102,077	104,629	107,245	109,926	112,674	115,491
217	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Retirement Contribution	\$ 283,226	292,187	298,243	305,401	313,036	320,862	328,883	337,105	345,533	354,171	363,026
218	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Dental Insurance	\$ 4,266	4,617	4,756	4,870	4,992	5,117	5,245	5,376	5,510	5,648	5,789
219	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Dental Insurance	\$ 20,349	19,807	20,614	21,109	21,636	22,177	22,732	23,300	23,883	24,480	25,092
220	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Optical Insurance	\$ 499	540	554	567	581	596	611	626	642	658	674
221	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Optical Insurance	\$ 2,362	2,310	2,409	2,467	2,528	2,592	2,656	2,723	2,791	2,861	2,932
222	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Dues & Licenses	\$ 4,244	5,025	5,025	5,146	5,274	5,406	5,541	5,680	5,822	5,967	6,117
223	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Dues & Licenses	\$ 2,285	1,900	1,900	1,946	1,994	2,044	2,095	2,148	2,201	2,256	2,313
224	Agency 074 - Utilities-Water Treatment	Organization 2400 - W/P Administration	Unemployment Compensa	\$ 965	1,145	1,145	1,156	1,185	1,215	1,245	1,277	1,308	1,341	1,375
225	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Unemployment Compensa	\$ 3,965	4,597	4,635	4,681	4,798	4,918	5,041	5,167	5,297	5,429	5,565
226	Agency 074 - Utilities-Water Treatment	Organization 4300 - W/P Operation	Construction	\$ 75,000	-	-	-	-	-	-	-	-	-	-
227	Agency 078 - Customer Service	Organization 8000 - Customer Service	Equipment Allowance	\$ -	390	390	399	409	420	430	441	452	463	475
228	Agency 078 - Customer Service	Organization 8000 - Customer Service	Professional Services	\$ 1,500	-	-	-	-	-	-	-	-	-	-
229	Agency 078 - Customer Service	Organization 8000 - Customer Service	Telecommunications	\$ 6,500	6,500	5,150	5,274	5,405	5,541	5,679	5,821	5,967	6,116	6,269
230	Agency 078 - Customer Service	Organization 8000 - Customer Service	Equipment Maintenance	\$ 250	250	250	256	262	269	276	283	290	297	304
231	Agency 078 - Customer Service	Organization 8000 - Customer Service	Radio System Service Chrg	\$ 472	499	475	486	499	511	524	537	550	564	578
232	Agency 078 - Customer Service	Organization 8000 - Customer Service	Contracted Services	\$ 3,500	3,500	3,500	3,584	3,674	3,765	3,860	3,956	4,054	4,154	4,260
233	Agency 078 - Customer Service	Organization 8000 - Customer Service	Printing	\$ 33,500	28,500	28,500	29,184	29,914	30,661	31,428	32,214	33,019	33,844	34,691
234	Agency 078 - Customer Service	Organization 8000 - Customer Service	Conference Training & Trav	\$ 3,500	3,500	3,500	3,605	3,695	3,788	3,882	3,979	4,079	4,181	4,285
235	Agency 078 - Customer Service	Organization 8000 - Customer Service	Governmental Services	\$ 100	100	100	102	105	108	110	113	116	119	122
236	Agency 078 - Customer Service	Organization 8000 - Customer Service	Employee Recognition	\$ 250	250	250	256	262	269	276	283	290	297	304
237	Agency 078 - Customer Service	Organization 8000 - Customer Service	Postage	\$ 58,500	62,500	62,500	64,000	65,600	67,240	68,921	70,644	72,410	74,220	76,076
238	Agency 078 - Customer Service	Organization 8000 - Customer Service	Materials & Supplies	\$ 5,650	6,150	6,150	6,298	6,455	6,616	6,782	6,951	7,125	7,303	7,486
239	Agency 078 - Customer Service	Organization 8000 - Customer Service	Life Insurance	\$ 249	397	397	407	427	438	449	460	471	483	495
240	Agency 078 - Customer Service	Organization 8000 - Customer Service	Medical Insurance	\$ 53,984	69									

Schedule 5. Projection of Cash Outflows

254	<b>Variable Operating Cost</b>													
255	Agency 074 - Utilities-Water Treatment	Organization 4300 - WIP Operation	Electricity	\$ 1,255,000	1,000,000	1,090,000	1,116,160	1,144,064	1,172,666	1,201,982	1,232,032	1,262,833	1,294,403	1,326,763
256	Agency 074 - Utilities-Water Treatment	Organization 4300 - WIP Operation	Chemicals	\$ 1,289,404	1,124,190	1,143,632	1,177,941	1,207,389	1,237,574	1,268,514	1,300,226	1,332,732	1,366,050	1,400,202
				\$ 2,544,404	2,124,190	2,233,632	2,294,101	2,351,453	2,410,240	2,470,496	2,532,258	2,595,565	2,660,454	2,726,965
257	<b>Minor Capital Outlay</b>													
258	Agency 046 - Systems Planning	Organization 8500 - System Planning	Property Plant & Equipment	\$ 3,462	500	500	512	525	538	551	565	579	594	609
259	Agency 061 - Public Works	Organization 6100 - Public Works	Property Plant & Equipment	\$ 125,000	672,575	383,160	392,356	402,165	412,219	422,524	433,087	443,915	455,012	466,388
260	Agency 061 - Public Works	Organization 6100 - Public Works	Equipment	\$ 278,500	5,000	-	-	-	-	-	-	-	-	-
261	Agency 074 - Utilities-Water Treatment	Organization 4300 - WIP Operation	Property Plant & Equipment	\$ 77,500	33,800	45,500	46,592	47,757	48,951	50,174	51,429	52,715	54,032	55,383
262	Agency 074 - Utilities-Water Treatment	Organization 4300 - WIP Operation	Equipment	\$ 205,000	100,000	100,000	102,400	104,960	107,584	110,274	113,030	115,856	118,753	121,721
				\$ 689,462	811,875	529,160	541,860	555,406	569,291	583,524	598,112	613,065	628,391	644,101
263	<b>Transfers Out</b>													
264	Transfer To IT Fund			\$ 133,561	126,759	137,588	137,588	137,588	137,588	137,588	137,588	137,588	137,588	137,588
265	Transfer To IT Fund			\$ 836	1,114	1,114	1,114	1,114	1,114	1,114	1,114	1,114	1,114	1,114
				\$ 1,579,796	1,550,919	1,449,562	1,449,562	1,449,562	1,449,562	1,449,562	1,449,562	1,449,562	1,449,562	1,449,562
266	<b>Debt Service</b>													
267	DWRf 2004A, 2004 (7146-01)/2.125%													
268	Principal			\$ 25,000	30,000	30,000	30,000	30,000	30,000	30,000	32,950	-	-	-
269	Interest			\$ 5,056	4,525	3,888	3,250	2,613	1,975	1,338	700	-	-	-
270	Series 2008-A													
271	Principal			\$ 425,000	305,000	1,585,000	1,615,000	1,670,000	1,710,000	1,740,000	1,780,000	1,675,000	1,725,000	1,750,000
272	Interest			\$ 198,134	317,200	311,100	279,400	247,100	213,700	179,500	144,700	109,100	215,234	132,801
273	DWRf 2009 (7319-01)													
274	Principal			\$ 200,000	205,000	215,000	220,000	225,000	230,000	235,000	240,000	245,000	250,000	260,000
275	Interest			\$ 90,750	85,750	80,625	105,250	69,750	64,125	58,375	52,500	46,500	40,375	34,000
276	DWRf 2011 (7325-01)													
277	Principal			\$ 30,000	30,000	30,000	30,000	30,000	30,000	30,000	35,000	35,000	35,000	35,000
278	Interest			\$ 11,457	10,707	9,957	9,207	8,457	7,707	6,957	6,207	5,332	4,457	3,582
279	DWRf 2012 (7362-01)-FINAL DEBT													
280	Principal			\$ 360,000	365,000	375,000	385,000	395,000	405,000	415,000	425,000	435,000	445,000	455,000
281	Interest			\$ 198,205	190,693	181,568	172,193	162,568	152,693	142,568	132,193	121,568	110,693	99,568
282	DWRf 2012 (7333-01)													
283	Principal			\$ 210,000	215,000	220,000	225,000	230,000	235,000	240,000	250,000	255,000	260,000	270,000
284	Interest			\$ 51,390	96,140	90,765	85,265	79,640	73,890	68,015	62,015	55,765	49,390	42,891
285	Series 2012 (Refinance of Z,W,X)													
286	Principal			\$ 1,355,000	660,000	670,000	680,000	675,000	680,000	680,000	680,000	-	-	-
287	Interest			\$ 132,128	105,028	91,827	78,428	64,828	49,640	34,000	17,000	-	-	-
288	DWRf FY 2014 (7375-01)													
289	Principal			\$ 125,000	130,000	81,360	81,360	81,360	81,360	81,360	81,360	81,360	81,360	81,360
290	Interest			\$ 2,238	(262)	128,484	128,484	128,484	128,484	128,484	128,484	128,484	128,484	128,484
				\$ 3,419,358	2,749,781	4,104,574	4,127,837	4,099,800	4,093,574	4,070,597	4,068,109	3,193,109	3,234,357	3,292,686
291	<b>Total Operating Expense</b>			\$ 20,030,972	18,892,022	21,340,368	21,753,336	22,129,697	22,537,980	22,939,874	23,372,878	22,944,259	23,443,046	23,970,353

Schedule 6. Cost Escalation Factors

Operating Cost Escalation Factors											Schedule 6
	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	
1	Accrued Leave Balances Changes	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
2	Advertising	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
3	American Recovery & Reinvest Act - State Portion	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
4	American Recovery and Reinvestment Act (ARRA)	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
5	Amortized Discount/Bonds	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
6	Annual Sick Leave Payout	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
7	Arbitration/Legal Settlement	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
8	Background Check/Drug Screen	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
9	Bad Debt Recovery	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
10	Bad Debts	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
11	Bank Service Fees	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
12	Benefit Waiver Pay	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
13	Bond/Note Proceeds	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
14	Bonded Project User Fees	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
15	Building Maintenance	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
16	Burden	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
17	Cable TV/Broadcast Service	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
18	Capitalized Asset Credit	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
19	Capitalized asset credit - Personal services	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
20	Capitalized Burden Credit	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
21	Change in Accrued Pension Liability	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
22	Chemicals	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
23	Comp Time Used	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
24	Conference Training & Travel	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	
25	Connection Charges	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
26	Construction	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
27	Construction Reimbursement	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
28	Contingency	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
29	Contracted Services	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
30	Contracted Temp Empl Services	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
31	Contractor Water/Sewer Sales	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
32	Contrib Capital - Shared Costs	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
33	Contributed Capital-Customers	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
34	Contributions & Memorials	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
35	Deferred Comp Contributions	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
36	Dental Insurance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
37	Depreciation	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
38	Disability Insurance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
39	Dues & Licenses	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
40	Educational Reimbursement	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
41	Electricity	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
42	Employee Recognition	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
43	Equipment	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
44	Equipment Allowance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
45	Equipment Leasing	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
46	Equipment Maintenance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
47	Excess Comp Time Paid	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
48	Excess Pension Refund	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
49	Fleet Depreciation	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
50	Fleet Fuel	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
51	Fleet Maintenance & Repair	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
52	Fleet Management	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
53	Gain/Loss Sale of Fixed Asset	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
54	Garage Repairs Garage Repairs	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
55	Gasoline	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
56	Governmental Services	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
57	Holiday	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
58	His Attributable/Workers Comp	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
59	Improvement Charges	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
60	Infrastructure	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
61	Insurance Premiums	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
62	Interest	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
63	Interest On Impr Chgs/SA	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
64	Interest/Dividends	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
65	Inventory/Cost Of Goods Sold	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
66	Legal Expenses	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
67	Life Insurance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
68	Longevity Pay	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
69	Materials & Supplies	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
70	Medical Insurance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
71	Miscellaneous	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
72	Municipal Service Charges	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
73	Natural Gas	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
74	Non-Employee Travel	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
75	Operating Transfers	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
76	Operating Transfers 0010	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
77	Operating Transfers 0014	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
78	Operating Transfers 0057	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
79	Operating Transfers 0062	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
80	Operating Transfers 0069	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
81	Operating Transfers 0071	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
82	Operating Transfers 0075	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
83	Operating Transfers Art in Public Places	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
84	Optical Insurance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
85	Other Fuels	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
86	Other Paid City Business	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
87	Other Paid Time Off	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
88	Overtime Paid-Permanent	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
89	Paying Agent Fee	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
90	Penalties/Delinquent Special Assessments & Taxes	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
91	Permanent Time Worked	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
92	Personal Leave Used	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
93	Postage	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
94	Printing	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
95	Prior Year Fund Balance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
96	Professional Services	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
97	Property Plant & Equipment < \$5,000	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
98	Purchasing Card-Pass Thru	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	
99	Radio Maintenance	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	

Schedule 6. Cost Escalation Factors

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
100 Radio System Service Charge	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
101 Refund Prior Year Expense	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
102 Refunds/Reimbursement	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
103 Rent	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
104 Rent City Vehicles	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
105 Rent Outside Vehicles/Mileage	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
106 Repair Parts	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
107 Repair Parts Outside Repairs	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
108 Retiree Health Savings Account	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
109 Retiree Medical Insurance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
110 Retirement Contribution	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
111 Safety Related supplies	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
112 Severance Pay	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
113 Sick Time Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
114 Social Security-Employer	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
115 Software	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
116 Software Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
117 Software Purchase	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
118 Storm Water Runoff	2.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
119 Structures & Improvements	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
120 Taxes	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
121 Telecommunications	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
122 Temporary Pay	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
123 Temporary Pay Overtime	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
124 Tipping Fees	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
125 Towing Charges	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
126 Training	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
127 Transfer To IT Fund	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
128 Transfer To Maintenance Facilities	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
129 Transfer To Other Funds	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
130 U Of M Grant/Reimbursement	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
131 Unemployment Compensation	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
132 Uniform Allowance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
133 Uniforms & Accessories	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
134 Vacation Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
135 Veba Funding	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
136 Water	2.00%	2.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
137 Workers Comp	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
138 Working In a Higher Class	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
139 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%	2.50%

Forecast of Net Revenues and Debt Service Coverage

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<b>1 Rate Revenue Subject to Growth &amp; Rate Adjustments</b>											
2 Volume Rate Revenue	\$ 20,786,605	20,786,605	21,177,479	22,217,557	23,311,635	24,462,570	25,673,374	26,947,219	28,287,445	29,697,572	31,181,306
3 Additional Rate Revenue From Growth	-	(91,981)	(91,000)	(92,700)	(94,435)	(96,207)	(98,017)	(99,866)	(101,754)	(103,682)	(105,653)
4 Proposed Water Rate Adjustments	0.00%	2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
5 Additional Rate Revenue From Rate Adjustment	-	538,060	1,265,189	1,327,491	1,393,032	1,461,982	1,534,521	1,610,841	1,691,141	1,775,633	1,864,539
6 Price Elasticity Adjustment	-	(55,205)	(134,110)	(140,714)	(147,661)	(154,970)	(162,659)	(170,749)	(179,261)	(188,217)	(197,641)
7 Base Rate Revenue	\$ 2,081,166	2,081,166	2,081,166	2,227,498	2,383,898	2,526,932	2,678,548	2,839,261	3,009,616	3,190,193	3,381,605
8 Additional Rate Revenue From Growth	-	-	20,247	21,462	-	-	-	-	-	-	-
9 Proposed Water Rate Adjustments	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%
10 Additional Rate Revenue From Rate Adjustment	-	-	126,085	134,938	143,034	151,616	160,713	170,356	180,577	191,412	202,896
<b>11 Total Rate Revenue</b>	<b>\$ 22,867,771</b>	<b>23,258,645</b>	<b>24,445,055</b>	<b>25,695,533</b>	<b>26,989,502</b>	<b>28,351,922</b>	<b>29,786,480</b>	<b>31,297,062</b>	<b>32,887,765</b>	<b>34,562,911</b>	<b>36,327,052</b>
<b>12 Plus: Other Operating Revenues</b>											
13 Other Operating Revenues	\$ 645,611	665,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500	674,500
<b>14 Equals: Total Operating Revenue</b>	<b>\$ 23,513,382</b>	<b>23,924,145</b>	<b>25,119,555</b>	<b>26,370,033</b>	<b>27,664,002</b>	<b>29,026,422</b>	<b>30,460,980</b>	<b>31,971,562</b>	<b>33,562,265</b>	<b>35,237,411</b>	<b>37,001,552</b>
<b>15 Less: Operating Expenses</b>											
16 Personal Services	\$ (4,652,376)	(4,757,232)	(6,552,163)	(6,711,785)	(6,879,580)	(7,051,569)	(7,227,858)	(7,408,555)	(7,593,769)	(7,783,613)	(7,978,203)
17 Variable O&M	(2,544,404)	(2,124,190)	(2,233,632)	(2,294,101)	(2,351,453)	(2,410,240)	(2,470,496)	(2,532,258)	(2,595,565)	(2,660,454)	(2,726,965)
18 Fixed O&M	(7,145,576)	(6,898,025)	(6,471,277)	(6,628,191)	(6,793,895)	(6,963,743)	(7,137,836)	(7,316,282)	(7,499,189)	(7,686,669)	(7,878,836)
<b>18 Equals: Net Operating Income</b>	<b>\$ 9,171,026</b>	<b>10,144,698</b>	<b>9,862,483</b>	<b>10,735,956</b>	<b>11,639,073</b>	<b>12,600,870</b>	<b>13,624,789</b>	<b>14,714,466</b>	<b>15,873,742</b>	<b>17,106,675</b>	<b>18,417,548</b>
<b>19 Plus: Non-Operating Income/(Expense)</b>											
20 Non-Operating Revenue	\$ 112,288	558,200	2,902,200	2,902,200	265,200	265,200	265,200	265,200	265,200	265,200	265,200
21 Interest Income	374,628	453,291	493,822	489,891	482,580	482,277	524,167	571,639	614,896	643,940	675,032
<b>22 Equals: Net Income</b>	<b>\$ 9,657,941</b>	<b>11,156,189</b>	<b>13,258,505</b>	<b>14,128,047</b>	<b>12,386,853</b>	<b>13,348,347</b>	<b>14,414,156</b>	<b>15,551,305</b>	<b>16,753,838</b>	<b>18,015,815</b>	<b>19,357,780</b>
<b>23 Cash Flow Test</b>											
24 Net Income Available For Debt Service	\$ 9,657,941	11,156,189	13,258,505	14,128,047	12,386,853	13,348,347	14,414,156	15,551,305	16,753,838	18,015,815	19,357,780
25 Transfers In	1,402,891	1,440,905	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640	1,462,640
26 Transfers Out	(1,579,796)	(1,550,919)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)	(1,449,562)
27 Senior Debt Service	(2,110,262)	(1,387,228)	(2,665,716)	(2,690,764)	(3,051,812)	(4,335,623)	(6,304,130)	(8,466,421)	(9,487,411)	(10,694,086)	(12,187,811)
28 State Revolving Loans	(1,309,096)	(1,362,553)	(1,446,647)	(1,475,009)	(1,442,872)	(1,440,234)	(1,437,097)	(1,446,409)	(1,409,009)	(1,294,123)	(1,409,885)
29 CAPITAL OUTLAY	(689,462)	(811,875)	(529,160)	(541,860)	(555,406)	(569,291)	(583,524)	(598,112)	(613,065)	(628,391)	(644,101)
<b>30 Net Cash Flow</b>	<b>\$ 5,372,216</b>	<b>\$ 7,484,519</b>	<b>\$ 8,630,059</b>	<b>\$ 9,433,491</b>	<b>\$ 7,349,841</b>	<b>\$ 7,016,277</b>	<b>\$ 6,102,483</b>	<b>\$ 5,053,441</b>	<b>\$ 5,257,431</b>	<b>\$ 5,412,292</b>	<b>\$ 5,129,062</b>
<b>31 Unrestricted Working Capital Reserve Fund Test</b>											
32 Balance At Beginning Of Fiscal Year	\$ 22,880,216	22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368
33 Cash Flow Surplus/(Deficit)	5,372,216	7,484,519	8,630,059	9,433,491	7,349,841	7,016,277	6,102,483	5,053,441	5,257,431	5,412,292	5,129,062
34 Reserve Fund Balance Used for Cash Flow Deficit	-	-	-	-	-	-	-	-	-	-	-
35 Projects Paid with Cash	-	-	-	-	-	(579,637)	(1,319,254)	(734,342)	-	-	-
36 Projects Paid with Reserve Fund Balance	(5,278,494)	(10,172,250)	(12,638,100)	(15,331,596)	(9,717,438)	(6,236,328)	(4,577,909)	(4,108,646)	(5,041,717)	(5,191,186)	(4,902,428)
<b>37 Balance At End Of Fiscal Year</b>	<b>\$ 22,973,938</b>	<b>20,286,207</b>	<b>16,278,167</b>	<b>10,380,061</b>	<b>8,012,464</b>	<b>8,212,776</b>	<b>8,418,095</b>	<b>8,628,548</b>	<b>8,844,261</b>	<b>9,065,368</b>	<b>9,292,002</b>
38 Minimum Working Capital Reserve Target	7,171,178	6,889,723	7,628,536	7,817,038	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368	9,292,002
<b>39 Excess Working Capital Above Target</b>	<b>\$ 15,802,760</b>	<b>13,396,484</b>	<b>8,649,630</b>	<b>2,563,023</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Capital Project Funding Summary**

**Schedule 8**

<u>Capital Project Funding Sources:</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Cash Funded	\$ -	-	-	-	-	579,637	1,319,254	734,342	-	-	-
Reserve Balance Funded	5,278,494	10,172,250	12,638,100	15,331,596	9,717,438	6,236,328	4,577,909	4,108,646	5,041,717	5,191,186	4,902,428
Bond Funded	-	-	206,000	636,540	7,933,928	26,143,435	34,186,361	34,883,370	27,299,046	12,050,822	30,389,077
<b>Total Projects Paid</b>	<b>\$ 5,278,494</b>	<b>10,172,250</b>	<b>12,844,100</b>	<b>15,968,136</b>	<b>17,651,366</b>	<b>32,959,400</b>	<b>40,083,524</b>	<b>39,726,359</b>	<b>32,340,763</b>	<b>17,242,008</b>	<b>35,291,505</b>
Total CIP Input	5,278,494	10,172,250	12,844,100	15,968,136	17,651,366	32,959,400	40,083,524	39,726,359	32,340,763	17,242,008	35,291,505
Variance	\$ -	-	-	-	-	-	-	-	-	-	-

Schedule 9. Funding Summary by Fund

**Funding Summary by Fund**

**Schedule 9**

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<b><u>EQUIPMENT REPLACEMENT FUND</u></b>											
Balance at the Beginning of the Fiscal Year	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Additional Annual Revenues	-	-	-	-	-	-	-	-	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Less: Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Total Amount Available for Projects	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Amount Paid for Projects	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	109,000	136,000	164,000	191,000	218,000	218,000	218,000	218,000	218,000	218,000	218,000
Less: Interest Allocated to Cash Flow	(109,000)	(136,000)	(164,000)	(191,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)	(218,000)
<b>Balance at End of Fiscal Year</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>
<b><u>REVENUE FUND</u></b>											
Balance at the Beginning of the Fiscal Year	\$ 22,880,216	22,973,938	20,286,207	16,278,167	10,380,061	8,012,464	8,212,776	8,418,095	8,628,548	8,844,261	9,065,368
Additional Annual Revenues	5,372,216	7,484,519	8,630,059	9,433,491	7,349,841	7,016,277	6,102,483	5,053,441	5,257,431	5,412,292	5,129,062
Less: Cash-Funded Capital Projects	-	-	-	-	-	(579,637)	(1,319,254)	(734,342)	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 28,252,432	30,458,457	28,916,267	25,711,658	17,729,902	14,449,104	12,996,005	12,737,194	13,885,979	14,256,554	14,194,430
Less: Minimum Fund Balance	(7,171,178)	(6,889,723)	(7,628,536)	(7,817,038)	(8,012,464)	(10,513,048)	(10,775,874)	(11,045,271)	(11,321,402)	(11,604,437)	(11,894,548)
Total Amount Available for Projects	\$ 21,081,254	23,568,734	21,287,730	17,894,619	9,717,438	3,936,057	2,220,131	1,691,923	2,564,577	2,652,116	2,299,882
Amount Paid for Projects	(5,278,494)	(10,172,250)	(12,638,100)	(15,331,596)	(9,717,438)	(6,236,328)	(4,577,909)	(4,108,646)	(5,041,717)	(5,191,186)	(4,902,428)
Subtotal	\$ 15,802,760	13,396,484	8,649,630	2,563,023	-	(2,300,272)	(2,357,778)	(2,416,723)	(2,477,141)	(2,539,069)	(2,602,546)
Minimum Fund Balance	7,171,178	6,889,723	7,628,536	7,817,038	8,012,464	10,513,048	10,775,874	11,045,271	11,321,402	11,604,437	11,894,548
Plus: Interest Earnings	229,271	270,376	274,233	233,259	183,925	162,252	166,309	170,466	174,728	179,096	183,574
Less: Interest Allocated to Cash Flow	(229,271)	(270,376)	(274,233)	(233,259)	(183,925)	(162,252)	(166,309)	(170,466)	(174,728)	(179,096)	(183,574)
<b>Balance at End of Fiscal Year</b>	<b>\$ 22,973,938</b>	<b>\$ 20,286,207</b>	<b>\$ 16,278,167</b>	<b>\$ 10,380,061</b>	<b>\$ 8,012,464</b>	<b>\$ 8,212,776</b>	<b>\$ 8,418,095</b>	<b>\$ 8,628,548</b>	<b>\$ 8,844,261</b>	<b>\$ 9,065,368</b>	<b>\$ 9,292,002</b>

Schedule 10. Long-Term Borrowing Projections

**Long-Term Borrowing Projections**

**Schedule 10**

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Term (Years)	30	30	30	30	30	30	30	30	30	30	30
Interest Rate	3.00%	3.25%	3.50%	3.75%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
<b>Sources of Funds</b>											
Par Amount	-	-	222,551	688,961	8,603,542	28,349,911	37,071,651	37,827,487	29,603,054	13,067,897	32,953,881
<b>Uses of Funds</b>											
Proceeds	-	-	206,000	636,540	7,933,928	26,143,435	34,186,361	34,883,370	27,299,046	12,050,822	30,389,077
Cost of Issuance	1.50% of Par	-	4,451	13,779	172,071	566,998	741,433	756,550	592,061	261,358	659,078
Underwriter's Discount	\$0.00 per \$1,000	-	-	-	-	-	-	-	-	-	-
Bond Insurance	- times total Debt Service	-	-	-	-	-	-	-	-	-	-
Capitalized Interest	- Years Interest	-	-	-	-	-	-	-	-	-	-
Debt Service Surety	0.00% of Debt Service	-	-	-	-	-	-	-	-	-	-
Debt Service Reserve	1 Years of Debt Service	-	12,100	38,642	497,544	1,639,478	2,143,857	2,187,567	1,711,948	755,718	1,905,726
<b>Other Costs</b>											
Total Uses	\$0	-	222,551	688,961	8,603,542	28,349,911	37,071,651	37,827,487	29,603,054	13,067,897	32,953,881
1 Year Interest	\$0	-	7,789	25,836	344,142	1,133,996	1,482,866	1,513,099	1,184,122	522,716	1,318,155
Annual Debt Service	-	-	12,100	38,642	497,544	1,639,478	2,143,857	2,187,567	1,711,948	755,718	1,905,726
Total Debt Service	\$0	-	363,012	1,159,266	14,926,311	49,184,345	64,315,718	65,627,020	51,358,426	22,671,533	57,171,786
<b>Cumulative Annual New Debt Service <sup>(1)</sup></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 7,789</b>	<b>\$ 37,936</b>	<b>\$ 394,884</b>	<b>\$ 1,682,283</b>	<b>\$ 3,670,630</b>	<b>\$ 5,844,721</b>	<b>\$ 7,703,311</b>	<b>\$ 8,753,852</b>	<b>\$ 10,305,010</b>

(1) Interest-only payment required in first year of issuance.



**FAMS - Control Panel**

**Schedule 11**

SAVE
CALC
ROLL

**FINANCIAL ANALYSIS AND MANAGEMENT SYSTEM (FAMS) SUMMARY**  
 The City of Ann Arbor (Water)

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cumulative Change		
Override ▶		2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	FY 2022	FY 2027
Volume Charges	0.00%	2.60%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	27.35%	70.13%	

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Key Toggles/Scenarios		
Override ▶		0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%		
Fixed Charges	0.00%	0.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%			
Rate Covenant	4.58	8.04	4.40	4.64	3.32	2.54	1.93	1.57	1.51	1.43	1.35			
CIP \$ Redistribution ▶	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
CIP Execution % ▶	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
Operating Reserve Mo ▶	9	9	9	9	9	9	9	9	9	9	9			

**Operating Fund**

**Rev vs. Exp**

**CIP**

**CIP Funding**

**Long-Term Borrowing**

## APPENDIX A2: REVENUE SUFFICIENCY ANALYSIS SUPPORTING SCHEDULES - SEWER

- Schedule 1 Assumptions
- Schedule 2 Beginning Fund Balances
- Schedule 3 Capital Improvement Program
- Schedule 4 Projection of Cash Inflows
- Schedule 5 Projection of Cash Outflows
- Schedule 6 Cost Escalation Factors
- Schedule 7 Pro Forma
- Schedule 8 Capital Projects Funding Summary
- Schedule 9 Funding Summary by Fund
- Schedule 10 Long-Term Borrowing Projections
- Schedule 11 FAMS-XL Control Panel

**Assumptions**

**Schedule 1**

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<b><u>Annual Sewer System Growth:</u></b>											
Total Equivalent Residential Units	43,625	43,625	44,139	44,654	44,654	44,654	44,654	44,654	44,654	44,654	44,654
Growth in Accounts <sup>1</sup>		0	514	514	0	0	0	0	0	0	0
% Increase in Accounts		0.00%	1.18%	1.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Volume (CCF)	4,909,992	4,868,707	4,853,469	4,837,924	4,797,260	4,757,053	4,717,299	4,677,992	4,639,126	4,600,696	4,562,697
Growth in Volume		(41,285)	(15,238)	(15,545)	(40,664)	(40,206)	(39,754)	(39,307)	(38,866)	(38,430)	(38,000)
% Increase in Volume		-0.84%	-0.31%	-0.32%	-0.84%	-0.84%	-0.84%	-0.83%	-0.83%	-0.83%	-0.83%
<b>Capital Recovery Charge</b>	\$ 6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707	6,707
<b><u>Capital Spending:</u></b>											
Annual Capital Spending Execution %	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Annual CIP Escalation %	0%	0%	3%	3%	3%	3%	3%	3%	3%	3%	3%
<b><u>Interest Earning Rate on Fund Balances</u></b>	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

(1) Growth in FY 2018 & FY 2019 is representative of staff's expectations for new developments connections

## Beginning Balances as of June 30, 2016

## Schedule 2

	Revenue Fund	Restricted Reserves	Equipment Reserve
<b>CURRENT UNRESTRICTED ASSETS</b>			
Cash and Cash Equivalents	\$ 10,394,335	-	-
Equity in pooled cash and investments	29,983,284	-	-
Accounts Receivable	6,738,925	-	-
Special assessments	25,148	-	-
Improvement charges	25,217	-	-
Due from other governments	3,369,950	-	-
<b>Less: Accounts Payable</b>	<b>50,536,859</b>	-	-
Less: Accounts Payable	(9,411,614)	-	-
Less: Accrued liabilities	(229,847)	-	-
Less: Accrued interest payable	(1,161,966)	-	-
Less: Bonds payable, current	-	-	-
Less: Compensated absences, current	(326,406)	-	-
<b>CALCULATED FUND BALANCE (ASSETS - LIABILITIES)</b>	<b>39,407,026</b>	-	-
Plus/(Less): Equipment Replacement Fund Balance	(8,701,764)	-	10,912,529
Plus/(Less): Debt Service Reserve	(10,394,335)	10,394,335	-
Plus/(Less): Deferred Resources	(269,520)	-	-
<b>NET UNRESTRICTED FUND BALANCE</b>	<b>20,041,407</b>	<b>10,394,335</b>	<b>10,912,529</b>
Funds Encumbered or Reserved for Projects not in the CIP	-	-	-
<b>AVAILABLE FUND BALANCE</b>	<b>\$ 20,041,407</b>	<b>\$ 10,394,335</b>	<b>\$ 10,912,529</b>
<b>Total Available Funds</b>	<b>\$ 41,348,271</b>		

Source: FY 2017 Balance Sheet Listings

Schedule 3. Capital Improvement Program

Capital Improvement Program

Schedule 3

Project	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
2780 Packard Sanitary Extension	\$ -	224,000	-	-	-	-	-	-	-	-	-
Austin Sanitary Sewer Outlet	\$ -	-	-	-	-	290,000	435,000	-	-	-	-
Barton Dr (east of M-14 ramp) Sanitary Sewer Extension	\$ -	-	-	-	-	120,000	180,000	-	-	-	-
Calvin Street Sanitary Sewer	\$ -	-	-	-	-	-	-	125,000	510,000	215,000	-
Dover Place/Riverview Sanitary Sewer	\$ -	267,000	333,000	-	-	-	-	-	-	-	-
Glen/Fuller Diversion	\$ -	-	-	200,000	-	-	-	-	-	-	-
High Level Trunkline Sanitary Sewer Rehabilitation	\$ -	-	1,000,000	1,000,000	1,000,000	-	-	-	-	-	-
Horman Ct Sanitary	\$ -	221,000	279,000	-	-	-	-	-	-	-	-
Lafayette - Lenawee Sanitary	\$ -	150,000	180,000	-	-	-	-	-	-	-	-
Lift Station Repair/Replacement Program -WWTP	\$ -	-	700,000	500,000	500,000	500,000	-	-	-	-	-
Michigan Stadium Sanitary Sewer Reroute	\$ -	-	-	-	-	-	-	930,000	1,170,000	-	-
Mulholland Murray Crosslot Sanitary Mains	\$ -	-	500,000	-	-	-	-	-	-	-	-
Northside Interceptor Condition Assessment	\$ -	280,000	-	-	-	-	-	-	-	-	-
Pittsfield Village Sanitary Sewers	\$ -	-	-	-	-	-	-	580,500	709,500	1,560,000	-
Rock Creek and Huntington Drive Sanitary Sewer Extension	\$ -	-	775,000	1,200,000	-	-	-	-	-	-	-
Sanitary Manhole Lid and Casting Sealing Program	\$ -	350,000	-	-	-	-	-	-	-	-	-
Sanitary Sewer Annexation Extensions	\$ -	-	-	-	-	-	-	-	-	-	-
Sanitary Sewer Collection System Asset Management Plan	\$ -	400,000	-	-	-	-	-	-	-	-	-
Sanitary Sewer Cost of Service Study	\$ -	-	-	-	-	-	-	-	-	-	-
Sanitary Sewer Lining Projects	\$ -	1,500,000	1,500,000	1,500,000	1,500,000	-	-	-	-	-	-
Sanitary Sewer System Public Works Capital Maintenance	\$ -	400,000	400,000	400,000	400,000	400,000	400,000	-	-	-	-
Scio Twp. Pump Station	\$ -	-	-	-	-	-	-	-	-	-	-
South side Interceptor Rehabilitation	\$ -	1,600,000	1,600,000	-	-	-	-	-	-	-	-
South Boulevard Lift Station Elimination & Gravity Sewer	\$ -	-	-	325,000	-	-	-	-	-	-	-
Springbrook Sanitary Sewer Extension	\$ -	-	-	-	-	260,000	-	-	-	-	-
Springwater Phase IV Sanitary Sewer	\$ -	-	-	-	-	-	-	160,000	-	-	-
Stone School Rd (Packard to Eisenhower) Sanitary Extension	\$ -	-	250,000	-	-	-	-	-	-	-	-
Wagner Road Sanitary Sewer - South	\$ -	-	267,000	333,000	-	-	-	-	-	-	-
Water Meter and MTU Replacement Program	\$ -	125,000	1,250,000	1,250,000	1,250,000	1,250,000	-	-	-	-	-
Wet Weather Mitigation (Long term)	\$ -	3,500,000	-	1,500,000	2,500,000	-	-	-	-	-	-
WWTP Area & Palmer Dr Area Odor Study	\$ -	200,000	-	-	-	-	-	-	-	-	-
WWTP Asset Management Plan	\$ -	400,000	-	-	-	-	-	-	-	-	-
Unspecified	\$ -	-	-	-	-	-	-	-	-	-	-
<b>FY 2017 Projections</b>	\$ -	-	-	-	-	-	-	-	-	-	-
9185 Sanitary Sewer Improvements	\$ 500,000	-	-	-	-	-	-	-	-	-	-
5834 NPDES Permit Dispute	\$ -	-	-	-	-	-	-	-	-	-	-
9154 Scio Township Pump Station Impr	\$ 85,946	-	-	-	-	-	-	-	-	-	-
9419 N Maple Estates Sewer Install	\$ 153,611	-	-	-	-	-	-	-	-	-	-
9777 Geddes Ave Improvements	\$ 825,000	-	-	-	-	-	-	-	-	-	-
0075 Sewer Revenue Bonds	\$ -	-	-	-	-	-	-	-	-	-	-
9095 Fuller/Glen Sanitary Sewer Diver	\$ -	-	-	-	-	-	-	-	-	-	-
9130 2014 Sewer Lining	\$ 500	-	-	-	-	-	-	-	-	-	-
9138 Londndry/Devnshr/Belmnt Water Mn	\$ -	-	-	-	-	-	-	-	-	-	-
9169 Ferdon/Wells Storm Sewer	\$ 117,055	-	-	-	-	-	-	-	-	-	-
9170 Sump Pump Installation Mods	\$ 394,064	-	-	-	-	-	-	-	-	-	-
9174 Development Offset Mitigat 2015	\$ 50,000	-	-	-	-	-	-	-	-	-	-
9183 Southside Interceptor Ph. III	\$ 2,200,000	-	-	-	-	-	-	-	-	-	-
9197 Sanitary Manhole Castings	\$ 19,804	-	-	-	-	-	-	-	-	-	-
9198 2016 Sanitary Sewer Lining	\$ 901,929	-	-	-	-	-	-	-	-	-	-
9220 2780 Packard Sanitary Ext	\$ 12,713	-	-	-	-	-	-	-	-	-	-

Schedule 3. Capital Improvement Program

<u>Project</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
9242 Riverview/Dover Pl Sewer & Water	\$ 7,500	-	-	-	-	-	-	-	-	-	-
9280 Nichols Arb Sewer & Siphon Rehab	\$ 1,024,486	-	-	-	-	-	-	-	-	-	-
9867 Stone School Road Improvements	\$ -	-	-	-	-	-	-	-	-	-	-
9874 PontiacTrail Imp-Skydale to M-14	\$ -	-	-	-	-	-	-	-	-	-	-
9486 Huron & Ashley Sanitary Sewer	\$ -	-	-	-	-	-	-	-	-	-	-
9224 Huron River Dr Sanitary Sewer	\$ 20,000	-	-	-	-	-	-	-	-	-	-
9402 WWTP Access Bridge Repair	\$ 150,000	-	-	-	-	-	-	-	-	-	-
9440 Secondary Effluent Pump WWTP	\$ 55,000	-	-	-	-	-	-	-	-	-	-
9510 WWTP Facility Renovations	\$ -	-	-	-	-	-	-	-	-	-	-
9510 WWTP Facility Renovations	\$ 3,143,176	-	-	-	-	-	-	-	-	-	-
<b>Total Projects Paid</b>	<b>\$ 9,660,784</b>	<b>\$ 9,617,000</b>	<b>\$ 9,034,000</b>	<b>\$ 8,208,000</b>	<b>\$ 7,150,000</b>	<b>\$ 2,820,000</b>	<b>\$ 1,015,000</b>	<b>\$ 1,795,500</b>	<b>\$ 2,389,500</b>	<b>\$ 1,775,000</b>	<b>\$ -</b>
Cumulative Inflation	100%	100%	103%	106%	109%	113%	116%	119%	123%	127%	130%
Inflated Project Amount	\$ 9,660,784	9,617,000	9,305,020	8,707,867	7,812,998	3,173,935	1,176,663	2,143,921	2,938,784	2,248,517	-
Annual Execution	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Executed Project Amount	\$ 9,660,784	9,617,000	9,305,020	8,707,867	7,812,998	3,173,935	1,176,663	2,143,921	2,938,784	2,248,517	-

Schedule 4. Projection of Cash Inflows

Projection of Cash Inflows

Schedule 4

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<b>1</b>	<u>Rate Revenue Growth Assumptions:</u>										
2	Growth in Sewer Accounts										
	NA	-	-	-	-	-	-	-	-	-	-
3	Assumed Sewer Rate Increase										
	NA	0.54%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%
<b>4</b>	<u>Rate Revenue:</u>										
5	Volume Rate Revenue										
	\$ 21,211,164	21,032,815	22,277,634	23,594,395	24,858,564	26,191,108	27,595,757	27,365,814	27,138,453	26,913,641	26,691,347
6	Base Rate Revenue										
	2,080,285	2,205,103	2,387,284	2,584,165	2,765,057	2,958,611	3,165,714	3,165,714	3,165,714	3,165,714	3,165,714
<b>7</b>	<b>Total Other Operating Revenue</b>										
	<b>\$ 23,291,450</b>	<b>23,237,918</b>	<b>24,664,918</b>	<b>26,178,560</b>	<b>27,623,622</b>	<b>29,149,719</b>	<b>30,761,471</b>	<b>30,531,528</b>	<b>30,304,167</b>	<b>30,079,355</b>	<b>29,857,061</b>
<b>8</b>	<u>Other Revenue:</u>										
9	Organization 8000 - Customer Service Forfeited Discounts										
	\$ 270,701	216,265	216,265	216,265	216,265	216,265	216,265	216,265	216,265	216,265	216,265
10	Organization 8000 - Customer Service Sewer Tap Permits										
	22,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
11	Organization 8000 - Customer Service Merch & Jobbing-Field										
	30,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
12	Organization 8500 - System Planning Miscellaneous										
	-	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
13	Organization 6100 - Public Works Merch & Jobbing-Field										
	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
14	Organization 5300 - WWTP Operation Miscellaneous										
	-	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050	1,050
15	Organization 8500 - System Planning Site Plan Review										
	1,500	-	-	-	-	-	-	-	-	-	-
<b>16</b>	<b>Total Other Operating Revenue</b>										
	<b>\$ 325,701</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>	<b>266,815</b>
<b>17</b>	<u>Non-Operating Revenue:</u>										
18	Interest Income										
	\$ 280,195	219,706	185,405	183,001	184,523	186,082	195,255	204,282	198,722	196,347	212,554
19	Interest Income - Restricted										
	103,943	103,943	105,540	108,789	112,737	115,568	116,105	116,105	116,105	116,105	116,105
<b>20</b>	<b>Total Non-Operating Revenue</b>										
	<b>\$ 384,138</b>	<b>323,650</b>	<b>290,946</b>	<b>291,790</b>	<b>297,260</b>	<b>301,650</b>	<b>311,360</b>	<b>320,387</b>	<b>314,826</b>	<b>312,451</b>	<b>328,659</b>
<b>21</b>	<u>Capital Recovery Charge</u>										
	\$ -	-	3,450,415	3,450,415	-	-	-	-	-	-	-
<b>22</b>	<b>Total Non-Operating Revenue</b>										
	<b>\$ -</b>	<b>-</b>	<b>3,450,415</b>	<b>3,450,415</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>23</b>	<b>Total Revenue</b>										
	<b>\$ 24,001,289</b>	<b>\$ 23,828,382</b>	<b>\$ 28,673,094</b>	<b>\$ 30,187,580</b>	<b>\$ 28,187,696</b>	<b>\$ 29,718,184</b>	<b>\$ 31,339,645</b>	<b>\$ 31,118,730</b>	<b>\$ 30,885,808</b>	<b>\$ 30,658,621</b>	<b>\$ 30,452,534</b>

Schedule 5. Projection of Cash Outflows

Projection of Cash Outflows

Schedule 5

			FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	
<b>Personal Services</b>														
1	Agency 046 - Systems Planning	Organization 8500 - System Planning	Permanent Time Worked	\$ 265,465	247,547	248,060	254,262	260,618	267,133	273,812	280,657	287,674	294,865	302,237
2	Agency 046 - Systems Planning	Organization 8500 - System Planning	Temporary Pay	\$ 35,000	29,190	31,843	32,639	33,455	34,291	35,149	36,027	36,928	37,851	38,798
3	Agency 046 - Systems Planning	Organization 8500 - System Planning	Severance Pay	\$ -	17,000	-	-	-	-	-	-	-	-	-
4	Agency 046 - Systems Planning	Organization 8500 - System Planning	Annual Sick Leave Payout	\$ 154	2,936	245	251	257	264	270	277	284	291	299
5	Agency 046 - Systems Planning	Organization 8500 - System Planning	Longevity Pay	\$ 90	90	90	92	95	97	99	102	104	107	110
6	Agency 046 - Systems Planning	Organization 8500 - System Planning	Benefit Waiver Pay	\$ 1,874	-	-	-	-	-	-	-	-	-	-
7	Agency 061 - Public Works	Organization 6100 - Public Works	Permanent Time Worked	\$ 739,676	712,405	718,105	736,058	754,459	773,321	792,654	812,470	832,782	853,601	874,941
8	Agency 061 - Public Works	Organization 6100 - Public Works	Temporary Pay	\$ 500	14,079	14,501	14,864	15,235	15,616	16,006	16,407	16,817	17,237	17,668
9	Agency 061 - Public Works	Organization 6100 - Public Works	Overtime Paid-Permanent	\$ 23,350	16,200	16,200	16,605	17,020	17,446	17,882	18,329	18,787	19,257	19,738
10	Agency 061 - Public Works	Organization 6100 - Public Works	Annual Sick Leave Payout	\$ 2,069	289	289	296	304	311	319	327	335	344	352
11	Agency 061 - Public Works	Organization 6100 - Public Works	Longevity Pay	\$ 7,260	5,316	5,316	5,449	5,585	5,725	5,868	6,015	6,165	6,319	6,477
12	Agency 061 - Public Works	Organization 6100 - Public Works	Benefit Waiver Pay	\$ 234	-	-	-	-	-	-	-	-	-	-
13	Agency 070 - Public Services Administration	Organization 1000 - Administration	Permanent Time Worked	\$ 38,388	40,582	40,582	41,597	42,636	43,702	44,795	45,915	47,063	48,239	49,445
14	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocat	Permanent Time Worked	\$ 108,549	63,416	27,126	27,804	28,499	29,212	29,942	30,691	31,458	32,244	33,050
15	Agency 070 - Public Services Administration	Organization 1000 - Administration	Temporary Pay	\$ 5,000	5,000	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092
16	Agency 070 - Public Services Administration	Organization 1000 - Administration	Annual Sick Leave Payout	\$ 440	470	470	485	498	506	519	532	545	559	573
17	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocat	Benefit Waiver Pay	\$ 90	90	90	92	95	97	99	102	104	107	110
18	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Permanent Time Worked	\$ 369,321	413,448	449,738	460,532	471,584	482,903	494,492	506,360	518,513	530,957	543,700
19	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Permanent Time Worked	\$ 1,140,119	1,141,377	1,140,560	1,167,933	1,195,964	1,224,667	1,254,059	1,284,156	1,314,976	1,346,536	1,378,852
20	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Permanent Time Worked	\$ 716,560	718,078	722,592	739,934	757,693	775,877	794,498	813,566	833,092	853,086	873,560
21	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Temporary Pay	\$ -	15,000	15,000	15,360	15,729	16,106	16,493	16,888	17,294	17,709	18,134
22	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Overtime Paid-Permanent	\$ 1,000	-	-	-	-	-	-	-	-	-	-
23	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Overtime Paid-Permanent	\$ 168,000	166,240	171,122	175,229	179,434	183,741	188,151	192,666	197,290	202,025	206,874
24	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Overtime Paid-Permanent	\$ 53,000	54,590	56,228	57,577	58,959	60,374	61,823	63,307	64,826	66,382	67,975
25	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Severance Pay	\$ 33,000	-	-	-	-	-	-	-	-	-	-
26	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Severance Pay	\$ 40,000	67,400	83,722	85,731	87,789	89,896	92,053	94,263	96,525	98,841	101,214
27	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Annual Sick Leave Payout	\$ 3,211	3,223	3,223	3,300	3,380	3,461	3,544	3,629	3,716	3,805	3,896
28	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Longevity Pay	\$ 1,800	1,200	1,200	1,229	1,258	1,288	1,319	1,351	1,384	1,417	1,451
29	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Longevity Pay	\$ 5,250	5,925	5,847	5,987	6,131	6,278	6,429	6,583	6,741	6,903	7,069
30	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Longevity Pay	\$ 7,200	7,200	7,200	7,373	7,550	7,731	7,916	8,106	8,301	8,500	8,704
31	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Benefit Waiver Pay	\$ 1,710	1,710	1,710	1,751	1,793	1,836	1,880	1,925	1,971	2,019	2,067
32	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Benefit Waiver Pay	\$ 2,831	2,800	2,800	2,867	2,936	3,006	3,079	3,153	3,228	3,306	3,385
33	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Equipment Allowance	\$ 1,719	2,190	2,494	2,554	2,615	2,678	2,742	2,808	2,875	2,944	3,015
			\$ 3,772,860	3,754,991	3,771,353	3,862,973	3,956,820	4,052,948	4,151,412	4,252,269	4,355,577	4,461,395	4,569,786	
<b>Fixed Operating Cost</b>														
34	Agency 046 - Systems Planning	Organization 8500 - System Planning	Equipment Allowance	\$ 2,698	2,165	2,165	2,219	2,275	2,331	2,390	2,449	2,511	2,574	2,638
35	Agency 046 - Systems Planning	Organization 8500 - System Planning	Professional Services	\$ 3,086	31,000	31,000	31,775	32,569	33,384	34,218	35,074	35,950	36,849	37,770
36	Agency 046 - Systems Planning	Organization 8500 - System Planning	Telecommunications	\$ 600	800	800	820	841	862	883	905	928	951	975
37	Agency 046 - Systems Planning	Organization 8500 - System Planning	Rent City Vehicles	\$ 100	150	150	154	158	162	166	170	174	178	183
38	Agency 046 - Systems Planning	Organization 8500 - System Planning	Rent Outside Vehicles/Mile	\$ -	50	50	51	53	54	55	57	58	59	61
39	Agency 046 - Systems Planning	Organization 8500 - System Planning	Contracted Services	\$ 8,436	9,000	9,000	9,225	9,456	9,692	9,934	10,183	10,437	10,698	10,966
40	Agency 046 - Systems Planning	Organization 8500 - System Planning	Printing	\$ 200	100	100	103	105	108	110	113	116	119	122
41	Agency 046 - Systems Planning	Organization 8500 - System Planning	Software Maintenance	\$ -	400	400	410	420	431	442	453	464	475	487
42	Agency 046 - Systems Planning	Organization 8500 - System Planning	Conference Training & Travel	\$ 1,250	2,960	3,410	3,495	3,583	3,672	3,764	3,858	3,955	4,053	4,155
43	Agency 046 - Systems Planning	Organization 8500 - System Planning	Employee Recognition	\$ 200	200	200	205	210	215	221	226	232	238	244
44	Agency 046 - Systems Planning	Organization 8500 - System Planning	Postage	\$ 250	100	100	103	105	108	110	113	116	119	122
45	Agency 046 - Systems Planning	Organization 8500 - System Planning	Materials & Supplies	\$ 1,608	1,000	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218
46	Agency 046 - Systems Planning	Organization 8500 - System Planning	Property Plant & Equipment	\$ 500	200	200	205	210	215	221	226	232	238	244
47	Agency 046 - Systems Planning	Organization 8500 - System Planning	Life Insurance	\$ 694	651	651	667	684	701	719	737	755	774	793
48	Agency 046 - Systems Planning	Organization 8500 - System Planning	Medical Insurance	\$ 29,668	30,182	32,405	33,215	34,046	34,897	35,769	36,663	37,580	38,519	39,482
49	Agency 046 - Systems Planning	Organization 8500 - System Planning	Disability Insurance	\$ 1,722	1,536	1,536	1,574	1,614	1,654	1,695	1,738	1,781	1,826	1,871
50	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retiree Health Savings Acct	\$ 540	1,063	1,063	1,090	1,117	1,145	1,173	1,203	1,233	1,264	1,295
51	Agency 046 - Systems Planning	Organization 8500 - System Planning	Veiba Funding	\$ 41,555	30,177	30,177	30,931	31,705	32,497	33,310	34,143	34,996	35,871	36,768
52	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retiree Medical Insurance	\$ -	5,064	5,064	5,191	5,320	5,453	5,590	5,729	5,873	6,020	6,170
53	Agency 046 - Systems Planning	Organization 8500 - System Planning	Workers Comp	\$ 3,238	2,693	2,680	2,747	2,816	2,886	2,958	3,032	3,108	3,186	3,265
54	Agency 046 - Systems Planning	Organization 8500 - System Planning	Social Security-Employer	\$ 20,524	19,328	19,162	19,641	20,132	20,635	21,151	21,680	22,222	22,778	23,347
55	Agency 046 - Systems Planning	Organization 8500 - System Planning	Retirement Contribution	\$ 61,646	57,883	57,381	58,816	60,286	61,793	63,338	64,921	66,544	68,208	69,913
56	Agency 046 - Systems Planning	Organization 8500 - System Planning	Dental Insurance	\$ 2,765	2,794	2,877	2,949	3,023	3,098	3,176	3,255	3,336	3,420	3,505
57	Agency 046 - Systems Planning	Organization 8500 - System Planning	Optical Insurance	\$ 362	361	372	381	391	401	411	421	431	442	453
58	Agency 046 - Systems Planning	Organization 8500 - System Planning	Dues & Licenses	\$ 650	112	12	12	13	13	13	14	14	14	15
59	Agency 046 - Systems Planning	Organization 8500 - System Planning	Unemployment Compensa	\$ 703	719	719	737	755	774	794	813	834	855	876
60	Agency 061 - Public Works	Organization 6100 - Public Works	Equipment Allowance	\$ 2,530	2,664	2,664	2,731	2,799	2,869	2,941	3,014	3,089	3,167	3,246
61	Agency 061 - Public Works	Organization 6100 - Public Works	Professional Services	\$ 2,500	1,500	1,500	1,538	1,576	1,615	1,656	1,697	1,740	1,783	1,828
62	Agency 061 - Public Works	Organization 6100 - Public Works	Telecommunications	\$ 5,000	4,800	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092
63	Agency 061 - Public Works	Organization 6100 - Public Works	Building Maintenance	\$ 5,000	5,000	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092
64	Agency 061 - Public Works	Organization 6100 - Public Works	Radio Maintenance	\$ 1,707	1,205	1,241	1,272	1,304	1,336	1,370	1,404	1,439	1,475	1,512
65	Agency 061 - Public Works	Organization 6100 - Public Works	Radio System Service Char	\$ 16,607	10,475	10,588	10,853	11,124	11,402	11,687	11,979	12,279	12,586	12,900



Schedule 5. Projection of Cash Outflows

65	Agency 061 - Public Works	Organization 6100 - Public Works	Radio System Service Char	\$ 16,607	10,475	10,588	10,853	11,124	11,402	11,687	11,979	12,279	12,586	12,900
66	Agency 061 - Public Works	Organization 6100 - Public Works	Rent City Vehicles	\$ 62,022	7	7	7	7	8	8	8	8	8	9
67	Agency 061 - Public Works	Organization 6100 - Public Works	Rent Outside Vehicles/Repair	\$ 200	200	200	200	210	215	221	226	232	238	244
68	Agency 061 - Public Works	Organization 6100 - Public Works	Fleet Maintenance & Repair	\$ 105,371	171,578	176,726	181,145	185,673	190,315	199,949	204,948	210,072	215,323	221,323
69	Agency 061 - Public Works	Organization 6100 - Public Works	Fleet Management	\$ 7,038	7,093	7,093	7,270	7,452	7,638	7,829	8,025	8,226	8,431	8,642
70	Agency 061 - Public Works	Organization 6100 - Public Works	Contracted Services	\$ 176,280	186,808	183,118	187,696	192,388	197,198	202,128	207,181	212,361	217,700	223,112
71	Agency 061 - Public Works	Organization 6100 - Public Works	Tipping Fees	\$ 3,000	5,665	5,835	5,981	6,130	6,284	6,441	6,602	6,767	6,936	7,109
72	Agency 061 - Public Works	Organization 6100 - Public Works	Conference Training & Travel	\$ 7,050	7,925	7,925	8,123	8,326	8,534	8,748	8,966	9,191	9,420	9,656
73	Agency 061 - Public Works	Organization 6100 - Public Works	Educational Reimbursements	\$ 2,320	1,200	-	-	-	-	-	-	-	-	-
74	Agency 061 - Public Works	Organization 6100 - Public Works	Employee Recognition	\$ 500	500	500	513	525	538	552	566	580	594	609
75	Agency 061 - Public Works	Organization 6100 - Public Works	Uniforms & Accessories	\$ 700	3,800	3,800	3,895	3,992	4,092	4,194	4,299	4,407	4,517	4,630
76	Agency 061 - Public Works	Organization 6100 - Public Works	Materials & Supplies	\$ 49,500	56,423	57,052	58,478	59,940	61,439	62,975	64,549	66,163	67,817	69,512
77	Agency 061 - Public Works	Organization 6100 - Public Works	Property Plant & Equipment	\$ 5,000	7,000	7,000	7,175	7,354	7,538	7,727	7,920	8,118	8,321	8,529
78	Agency 061 - Public Works	Organization 6100 - Public Works	Inventory/Cost Of Goods Sold	\$ 5,000	-	-	-	-	-	-	-	-	-	-
79	Agency 061 - Public Works	Organization 6100 - Public Works	Life Insurance	\$ 486	918	918	941	964	989	1,013	1,039	1,065	1,091	1,118
80	Agency 061 - Public Works	Organization 6100 - Public Works	Medical Insurance	\$ 165,602	160,028	172,288	176,595	181,010	185,535	190,174	194,928	199,801	204,796	209,916
81	Agency 061 - Public Works	Organization 6100 - Public Works	Disability Insurance	\$ 549	549	549	563	577	591	606	621	637	653	669
82	Agency 061 - Public Works	Organization 6100 - Public Works	Retiree Health Savings Account	\$ 3,054	4,715	4,715	4,833	4,954	5,078	5,204	5,335	5,468	5,605	5,745
83	Agency 061 - Public Works	Organization 6100 - Public Works	Veaba Funding	\$ 119,808	103,563	103,563	106,152	108,806	111,526	114,314	117,172	120,101	123,104	126,181
84	Agency 061 - Public Works	Organization 6100 - Public Works	Retiree Medical Insurance	\$ 126,906	141,792	141,792	145,337	148,970	152,694	156,512	160,425	164,435	168,546	172,760
85	Agency 061 - Public Works	Organization 6100 - Public Works	Workers Comp	\$ 24,261	22,913	23,126	23,704	24,297	24,904	25,527	26,165	26,819	27,490	28,177
86	Agency 061 - Public Works	Organization 6100 - Public Works	Social Security-Employer	\$ 57,002	54,738	55,169	56,548	57,962	59,411	60,896	62,419	63,979	65,579	67,218
87	Agency 061 - Public Works	Organization 6100 - Public Works	Retirement Contribution	\$ 173,768	165,861	167,176	171,355	175,639	180,030	184,531	189,144	193,873	198,720	203,688
88	Agency 061 - Public Works	Organization 6100 - Public Works	Insurance Premiums	\$ 4,901	6,069	6,069	6,221	6,376	6,536	6,699	6,867	7,038	7,214	7,394
89	Agency 061 - Public Works	Organization 6100 - Public Works	Dental Insurance	\$ 13,202	12,616	12,995	13,320	13,653	13,994	14,344	14,703	15,070	15,447	15,833
90	Agency 061 - Public Works	Organization 6100 - Public Works	Optical Insurance	\$ 1,546	1,475	1,521	1,559	1,598	1,638	1,679	1,721	1,764	1,808	1,853
91	Agency 061 - Public Works	Organization 6100 - Public Works	Dues & Licenses	\$ 2,000	2,650	2,650	2,716	2,784	2,854	2,925	2,998	3,073	3,129	3,229
92	Agency 061 - Public Works	Organization 6100 - Public Works	Unemployment Compensation	\$ 2,383	2,758	2,758	2,827	2,898	2,970	3,044	3,120	3,198	3,278	3,360
93	Agency 061 - Public Works	Organization 6100 - Public Works	Repair Parts Outside Repairs	\$ 21,000	21,000	21,000	21,525	22,063	22,615	23,180	23,760	24,354	24,962	25,586
94	Agency 070 - Public Services Administration	Organization 1000 - Administration	Equipment Allowance	\$ 90	90	90	92	95	97	99	102	104	107	110
95	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Equipment Allowance	\$ 561	510	206	211	216	222	227	233	239	245	251
96	Agency 070 - Public Services Administration	Organization 1000 - Administration	Professional Services	\$ 15,000	15,000	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218
97	Agency 070 - Public Services Administration	Organization 1000 - Administration	Legal Expenses	\$ 5,000	20,000	20,000	20,500	21,013	21,538	22,076	22,628	23,194	23,774	24,368
98	Agency 070 - Public Services Administration	Organization 1000 - Administration	Conference Training & Travel	\$ 3,000	3,000	3,000	3,075	3,152	3,231	3,311	3,394	3,479	3,566	3,655
99	Agency 070 - Public Services Administration	Organization 1000 - Administration	Employee Recognition	\$ 100	100	100	103	105	108	110	113	116	119	122
100	Agency 070 - Public Services Administration	Organization 1000 - Administration	Life Insurance	\$ 105	105	105	108	110	113	115	118	121	124	127
101	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Life Insurance	\$ 230	147	64	66	67	69	70	72	74	76	77
102	Agency 070 - Public Services Administration	Organization 1000 - Administration	Medical Insurance	\$ 7,019	7,217	7,763	7,949	8,140	8,335	8,536	8,740	8,950	9,165	9,385
103	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Medical Insurance	\$ 15,717	9,275	3,812	3,903	3,997	4,093	4,191	4,292	4,395	4,500	4,608
104	Agency 070 - Public Services Administration	Organization 1000 - Administration	Disability Insurance	\$ 248	248	248	254	260	266	273	279	286	293	300
105	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Disability Insurance	\$ 572	339	145	148	152	156	159	163	167	171	175
106	Agency 070 - Public Services Administration	Organization 1000 - Administration	Retiree Health Savings Account	\$ 208	208	208	213	218	223	229	234	240	246	251
107	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Retiree Health Savings Account	\$ -	341	100	102	105	107	110	113	115	118	121
108	Agency 070 - Public Services Administration	Organization 1000 - Administration	Veaba Funding	\$ 3,570	3,971	3,971	4,066	4,164	4,264	4,366	4,471	4,578	4,688	4,801
109	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Veaba Funding	\$ 16,422	4,288	2,700	2,765	2,831	2,899	3,040	3,113	3,188	3,264	3,364
110	Agency 070 - Public Services Administration	Organization 1000 - Administration	Workers Comp	\$ 109	115	115	118	121	123	126	129	133	136	139
111	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Workers Comp	\$ 1,106	681	342	350	359	367	376	385	394	404	413
112	Agency 070 - Public Services Administration	Organization 1000 - Administration	Social Security-Employer	\$ 2,978	3,147	3,147	3,223	3,300	3,379	3,460	3,543	3,628	3,715	3,804
113	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Social Security-Employer	\$ 8,346	4,889	2,088	2,138	2,189	2,242	2,296	2,351	2,407	2,465	2,524
114	Agency 070 - Public Services Administration	Organization 1000 - Administration	Excess Pension Refund	\$ -	47,692	-	-	-	-	-	-	-	-	-
115	Agency 070 - Public Services Administration	Organization 1000 - Administration	Retirement Contribution	\$ 9,008	9,484	9,484	9,712	9,945	10,183	10,428	10,678	10,934	11,197	11,465
116	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Retirement Contribution	\$ 25,183	14,648	6,266	6,416	6,570	6,728	6,890	7,055	7,224	7,398	7,575
117	Agency 070 - Public Services Administration	Organization 1000 - Administration	Insurance Premiums	\$ 207,230	195,798	195,798	200,497	205,309	210,237	215,282	220,449	225,740	231,157	236,705
118	Agency 070 - Public Services Administration	Organization 1000 - Administration	Dental Insurance	\$ 548	564	580	594	608	623	638	653	669	685	701
119	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Dental Insurance	\$ 1,258	766	337	345	353	362	371	379	389	398	407
120	Agency 070 - Public Services Administration	Organization 1000 - Administration	Optical Insurance	\$ 64	66	68	70	71	73	75	77	78	80	82
121	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Optical Insurance	\$ 148	90	39	40	41	42	43	44	45	46	47
122	Agency 070 - Public Services Administration	Organization 1000 - Administration	Dues & Licenses	\$ 7,500	12,000	12,000	12,288	12,583	12,885	13,194	13,511	13,835	14,167	14,507
123	Agency 070 - Public Services Administration	Organization 1000 - Administration	Municipal Service Charges	\$ 537,079	664,843	684,788	701,223	718,052	735,286	752,932	771,003	789,507	808,455	827,858
124	Agency 070 - Public Services Administration	Organization 1000 - Administration	Unemployment Compensation	\$ 98	114	114	117	120	122	125	128	131	135	138
125	Agency 070 - Public Services Administration	Organization 8501 - Utilities MY Personnel Allocation	Unemployment Compensation	\$ 227	154	66	68	70	71	73	74	76	78	80
126	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Professional Services	\$ 25,000	225,000	25,000	25,600	26,214	26,844	27,488	28,147	28,823	29,515	30,223
127	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Professional Services	\$ 20,000	25,000	25,000	25,600	26,214	26,844	27,488	28,147	28,823	29,515	30,223
128	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Professional Services	\$ 35,000	15,000	16,000	16,384	16,777	17,180	17,592	18,014	18,447	18,889	19,341
129	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Telecommunications	\$ 10,000	7,725	8,000	8,192	8,389	8,590	8,796	9,007	9,223	9,445	9,671
130	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Building Maintenance	\$ 7,500	4,120	4,120	4,219	4,320	4,424	4,530	4,639	4,750	4,864	4,981
131	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Building Maintenance	\$ 6,100	22,200	27,300	27,955	28,626	29,313	30,017	30,737	31,475	32,230	33,004
132	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Equipment Maintenance	\$ 3,000	1,000	1,000	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209
133	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Equipment Maintenance	\$ 10,000	10,000	10,000	10,240	10,486	10,737	10,995	11,259	11,529	11,806	12,089
134	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Equipment Maintenance	\$ 107,000	158,750	166,500	170,496	174,588	178,778	183,069	187,462	191,961	196,569	201,286
135	Agency 075 - Wastewater Treatment Plant	Organization 5000 - WWTP Administration	Radio Maintenance	\$ 731	71	73	75	77	78	80	82	84	86	88

Schedule 5. Projection of Cash Outflows

136	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Radio System Service Char	\$	7,117	8,877	7,780	7,967	8,158	8,354	8,554	8,760	8,970	9,185	9,405
137	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Rent Outside Vehicles/Mile	\$	250	100	100	102	105	107	110	113	115	118	121
138	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Fleet Maintenance & Repair	\$	42,075	40,287	41,497	42,493	43,513	44,557	45,626	46,721	47,843	48,991	50,167
139	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Fleet Fuel	\$	5,376	330	364	373	382	391	400	410	420	430	440
140	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Fleet Management	\$	4,554	3,633	3,633	3,720	3,809	3,901	3,995	4,090	4,189	4,289	4,392
141	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Contracted Services	\$	6,000	81,678	82,810	84,797	86,833	88,917	91,051	93,236	95,473	97,765	100,111
142	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Contracted Services	\$	1,178,725	1,042,000	1,094,010	1,120,266	1,147,153	1,174,684	1,202,877	1,231,746	1,261,308	1,291,579	1,322,577
143	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Contracted Services	\$	111,000	122,250	222,500	227,840	233,308	238,908	244,641	250,513	256,525	262,682	268,986
144	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Printing	\$	500	500	500	512	524	537	550	563	576	590	604
145	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Printing	\$	150	150	150	154	157	161	165	169	173	177	181
146	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Software	\$	3,000	7,781	3,000	3,072	3,146	3,221	3,299	3,378	3,459	3,542	3,627
147	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Software Maintenance	\$	10,000	9,000	9,000	9,216	9,437	9,664	9,896	10,133	10,376	10,625	10,880
148	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Conference Training & Trav	\$	30,000	25,000	25,000	25,600	26,214	26,844	27,488	28,147	28,823	29,515	30,223
149	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Conference Training & Trav	\$	6,000	3,000	3,000	3,072	3,146	3,221	3,299	3,378	3,459	3,542	3,627
150	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Educational Reimbursemen	\$	5,000	5,000	5,000	5,120	5,243	5,369	5,498	5,629	5,765	5,903	6,045
151	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Advertising	\$	3,000	1,000	1,000	1,024	1,049	1,074	1,100	1,126	1,153	1,181	1,209
152	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Employee Recognition	\$	1,881	1,881	1,881	1,926	1,972	2,020	2,068	2,118	2,169	2,221	2,274
153	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Postage	\$	400	300	300	307	315	322	330	338	346	354	363
154	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Postage	\$	1,000	800	800	819	839	859	880	901	922	944	967
155	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Uniforms & Accessories	\$	16,000	16,680	17,174	17,586	18,008	18,440	18,883	19,336	19,800	20,275	20,762
156	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Uniforms & Accessories	\$	-	800	800	819	839	859	880	901	922	944	967
157	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Materials & Supplies	\$	12,500	7,500	8,000	8,192	8,389	8,590	8,796	9,007	9,223	9,445	9,671
158	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Materials & Supplies	\$	53,000	55,500	61,500	62,976	64,487	66,035	67,620	69,243	70,905	72,606	74,349
159	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Materials & Supplies	\$	114,650	100,375	102,800	105,267	107,794	110,381	113,030	115,743	118,520	121,365	124,278
160	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Equipment Parts/Maintenan	\$	140,280	185,400	191,850	196,454	201,169	205,997	210,941	216,004	221,188	226,497	231,932
161	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Safety Related supplies	\$	500	1,500	1,500	1,536	1,573	1,611	1,649	1,689	1,729	1,771	1,813
162	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Deferred Comp Contributio	\$	-	520	520	532	545	558	572	585	600	614	629
163	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Deferred Comp Contributio	\$	-	520	520	532	545	558	572	585	600	614	629
164	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Life Insurance	\$	614	801	884	905	927	949	972	995	1,019	1,044	1,069
165	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Life Insurance	\$	419	998	992	1,016	1,040	1,065	1,091	1,117	1,144	1,171	1,199
166	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Life Insurance	\$	242	710	710	727	744	762	781	799	818	838	858
167	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Medical Insurance	\$	54,723	63,639	74,577	76,367	78,200	80,076	81,998	83,966	85,981	88,045	90,158
168	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Medical Insurance	\$	243,290	227,975	241,392	247,185	253,118	259,193	265,413	271,783	278,306	284,985	291,825
169	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Medical Insurance	\$	152,168	156,513	168,558	172,603	176,746	180,988	185,331	189,779	194,334	198,998	203,774
170	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Disability Insurance	\$	1,418	1,653	1,847	1,891	1,937	1,983	2,031	2,080	2,129	2,179	2,233
171	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Retiree Health Savings Acc	\$	9,546	8,724	8,508	8,712	8,921	9,135	9,355	9,579	9,809	10,044	10,286
172	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Retiree Health Savings Acc	\$	1,660	2,490	2,490	2,550	2,611	2,674	2,738	2,803	2,871	2,940	3,010
173	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Retiree Health Savings Acc	\$	-	1,320	1,561	1,598	1,637	1,676	1,716	1,758	1,800	1,843	1,887
174	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Vebsa Funding	\$	69,258	59,248	60,836	62,296	63,791	65,322	66,890	68,495	70,139	71,822	73,546
175	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Vebsa Funding	\$	107,100	135,014	135,014	138,254	141,572	144,970	148,449	152,012	155,661	159,396	163,222
176	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Vebsa Funding	\$	128,520	127,072	127,072	130,122	133,245	136,443	139,717	143,070	146,504	150,020	153,621
177	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Retiree Medical Insurance	\$	400,242	455,760	455,760	466,698	477,899	489,369	501,113	513,140	525,456	538,066	550,980
178	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Workers Comp	\$	4,430	5,499	5,499	5,416	5,546	5,679	5,815	5,955	6,098	6,244	6,394
179	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Workers Comp	\$	18,563	17,306	17,447	17,866	18,295	18,734	19,183	19,644	20,115	20,598	21,092
180	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Workers Comp	\$	11,277	11,293	11,360	11,633	11,912	12,198	12,490	12,790	13,097	13,412	13,733
181	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Social Security-Employer	\$	28,413	31,817	34,615	35,446	36,296	37,168	38,060	38,973	39,908	40,866	41,847
182	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Social Security-Employer	\$	87,540	87,646	89,690	91,843	94,047	96,304	98,615	100,982	103,406	105,887	
183	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Social Security-Employer	\$	54,921	55,038	55,383	56,712	58,073	59,467	60,894	62,356	63,852	65,385	66,954
184	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Retirement Contribution	\$	86,099	95,783	104,167	106,667	109,227	111,848	114,533	117,282	120,096	122,979	125,930
185	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Retirement Contribution	\$	266,472	265,771	265,565	271,939	278,465	285,148	291,992	299,000	306,176	313,524	321,048
186	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Retirement Contribution	\$	167,912	167,538	168,581	172,627	176,770	181,012	185,357	189,805	194,361	199,025	203,802
187	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Dental Insurance	\$	5,304	5,992	6,623	6,782	6,945	7,111	7,282	7,457	7,636	7,819	8,007
188	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Dental Insurance	\$	20,238	19,008	19,279	19,742	20,215	20,701	21,197	21,706	22,227	22,761	23,307
189	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Dental Insurance	\$	12,034	12,386	12,760	13,066	13,380	13,701	14,030	14,366	14,711	15,064	15,426
190	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Optical Insurance	\$	620	701	772	791	810	829	849	869	890	911	933
191	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Optical Insurance	\$	2,287	2,228	2,244	2,298	2,353	2,409	2,467	2,527	2,587	2,649	2,713
192	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Optical Insurance	\$	1,408	1,452	1,485	1,521	1,557	1,595	1,633	1,672	1,712	1,753	1,795
193	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Dues & Licenses	\$	5,000	1,600	1,700	1,741	1,783	1,825	1,869	1,914	1,960	2,007	2,055
194	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Dues & Licenses	\$	70,485	51,125	53,624	54,911	56,229	57,578	58,960	60,375	61,824	63,308	64,827
195	Agency	075 - Wastewater Treatment Plant	Organization	5000 - WWTP Administration	Unemployment Compensa	\$	955	1,202	1,292	1,323	1,355	1,387	1,421	1,455	1,490	1,525	1,562
196	Agency	075 - Wastewater Treatment Plant	Organization	5300 - WWTP Operation	Unemployment Compensa	\$	3,743	4,295	4,237	4,339	4,443	4,549	4,659	4,770	4,885	5,002	5,122
197	Agency	075 - Wastewater Treatment Plant	Organization	5600 - WWTP Maintenance	Unemployment Compensa	\$	2,167	2,486	2,486	2,546	2,607	2,669	2,733	2,799	2,866	2,935	3,005
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Schedule 5. Projection of Cash Outflows

210	<b>Variable Operating Cost</b>																					
211	Agency 061 - Public Works	Organization 6100 - Public Works	Fleet Fuel	\$ 50,344	28,993	31,951	32,750	33,569	34,408	35,268	36,150	37,053	37,980	38,929								
210	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Natural Gas	\$ 290,900	201,132	211,200	216,269	221,459	226,774	232,217	237,790	243,497	249,341	255,325								
210	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Other Fuels	\$ 30,000	30,000	30,000	30,720	31,457	32,212	32,985	33,777	34,588	35,418	36,268								
210	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Electricity	\$ 1,341,000	1,164,500	1,215,400	1,244,570	1,274,439	1,305,026	1,336,346	1,368,419	1,401,261	1,434,891	1,469,328								
210	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Water	\$ 6,500	5,000	5,000	5,120	5,243	5,369	5,498	5,629	5,765	5,903	6,045								
211	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Chemicals	\$ 644,000	452,000	462,000	473,088	484,442	496,069	507,974	520,166	532,650	545,433	558,524								
				\$ 2,362,744	1,881,625	1,955,551	2,002,516	2,050,609	2,099,858	2,150,288	2,201,931	2,254,813	2,308,966	2,364,419								
212	<b>Minor Capital Outlay</b>																					
213	Agency 061 - Public Works	Organization 6100 - Public Works	Equipment	\$ 389,281	25,000	-	-	-	-	-	-	-	-	-								
214	Agency 075 - Wastewater Treatment Plant	Organization 5300 - WWTP Operation	Property Plant & Equipment	\$ 2,000	3,000	3,000	3,072	3,146	3,221	3,299	3,378	3,459	3,542	3,627								
215	Agency 075 - Wastewater Treatment Plant	Organization 5600 - WWTP Maintenance	Property Plant & Equipment	\$ 5,500	3,250	3,500	3,584	3,670	3,758	3,848	3,941	4,035	4,132	4,231								
				\$ 396,781	31,250	6,500	6,656	6,816	6,979	7,147	7,318	7,494	7,674	7,858								
216	<b>Transfers Out</b>																					
217	Transfer To IT Fund			\$ 27,601	104,328	113,188	113,188	113,188	113,188	113,188	113,188	113,188	113,188	113,188								
218	Transfer To IT Fund			\$ 92,795	121,253	126,824	126,824	126,824	126,824	126,824	126,824	126,824	126,824	126,824								
219	Transfer To Maintenance Facilities			\$ 44,564	40,487	40,947	40,947	40,947	40,947	40,947	40,947	40,947	40,947	40,947								
220	Transfer To Other Funds			\$ 702,595	668,867	682,556	682,556	682,556	682,556	682,556	682,556	682,556	682,556	682,556								
221	Transfer To IT Fund			\$ 113,204	100,029	101,901	101,901	101,901	101,901	101,901	101,901	101,901	101,901	101,901								
222	Transfer To IT Fund			\$ 41,311	48,505	50,978	50,978	50,978	50,978	50,978	50,978	50,978	50,978	50,978								
223	Transfer To IT Fund			\$ 20,293	24,940	25,738	25,738	25,738	25,738	25,738	25,738	25,738	25,738	25,738								
				\$ 1,042,363	1,108,409	1,142,132	1,142,132	1,142,132	1,142,132	1,142,132	1,142,132	1,142,132	1,142,132	1,142,132								
224	<b>Debt Service</b>																					
225	<b>2013 Series Refunding</b>																					
226	Principal			\$ 1,835,000	1,865,000	1,890,000	1,675,000	1,695,000	1,750,000	1,795,000	1,815,000	1,855,000	-	-								
227	Interest			\$ 398,887	361,888	324,338	288,688	246,513	194,837	141,662	87,512	30,144	-	-								
228	<b>3010-01</b>																					
229	Principal			\$ 60,000	65,000	65,000	65,000	65,000	70,000	70,000	75,000	75,000	75,000	80,000								
230	Interest			\$ 23,000	21,500	19,876	18,250	16,626	15,000	13,250	11,500	9,626	7,750	5,786								
231	<b>3010-02</b>																					
232	Principal			\$ 60,000	60,000	65,000	65,000	65,000	70,000	70,000	70,000	75,000	75,000	75,000								
233	Interest			\$ 24,750	23,250	21,750	20,126	18,500	16,876	15,126	13,376	11,626	9,750	7,876								
234	<b>3010-03</b>																					
235	Principal			\$ 60,000	60,000	60,000	65,000	65,000	65,000	70,000	70,000	70,000	75,000	75,000								
236	Interest			\$ 28,494	26,994	25,494	23,994	22,369	20,744	19,119	17,369	15,619	13,869	11,994								
237	<b>3010-04</b>																					
238	Principal			\$ 35,000	35,000	35,000	35,000	40,000	40,000	40,000	40,000	45,000	45,000	45,000								
239	Interest			\$ 18,668	17,793	16,918	16,043	15,168	14,168	13,168	12,168	11,168	10,043	8,918								
240	<b>3002-01</b>																					
241	Principal			\$ 45,000	45,000	45,000	50,000	50,000	50,000	50,000	49,672	-	-	-								
242	Interest			\$ 6,251	5,520	4,788	4,057	3,245	2,432	1,619	807	-	-	-								
243	<b>3002-02</b>																					
244	Principal			\$ 45,000	45,000	45,000	45,000	50,000	50,000	50,000	50,000	49,382	-	-								
245	Interest			\$ 6,977	6,246	5,515	4,784	4,052	3,240	2,427	1,615	802	-	-								
246	<b>3002-03</b>																					
247	Principal			\$ 45,000	45,000	45,000	45,000	50,000	50,000	50,000	50,000	50,000	49,903	-								
248	Interest			\$ 7,798	7,067	6,336	5,605	4,873	4,061	3,248	2,436	1,623	811	-								
249	<b>3002-04</b>																					
250	Principal			\$ 50,000	50,000	50,000	50,000	50,000	50,000	50,000	55,000	55,000	55,000	55,000								
251	Interest			\$ 9,262	8,450	7,637	6,825	6,012	5,200	4,387	3,575	2,681	1,787	893								
252	<b>3002-05</b>																					
253	Principal			\$ 45,000	45,000	45,000	45,000	50,000	50,000	50,000	50,000	55,000	55,000	55,000								
254	Interest			\$ 14,875	13,750	12,625	11,500	10,375	9,125	7,875	6,625	5,375	4,000	2,625								
255	<b>WWTP/SRF-PHASE I</b>																					
256	Principal			\$ 1,347,832	1,380,000	1,415,000	1,450,000	1,485,000	1,525,000	1,565,000	1,600,000	1,640,000	1,685,000	1,725,000								
257	Interest			\$ 14,875	13,750	12,625	11,500	10,375	9,125	7,875	6,625	5,375	4,000	2,625								
258	<b>WWTP/SRF-PHASE II</b>																					
259	Principal			\$ -	-	3,010,000	3,070,000	3,135,000	3,195,000	3,260,000	3,325,000	3,395,000	3,465,000	3,535,000								
260	Interest			\$ 1,466,100	1,466,100	1,436,000	1,375,200	1,313,150	1,249,850	1,185,300	1,119,450	1,052,250	983,650	913,650								
261	<b>Series 2016, Refunding</b>																					
262	Principal			\$ -	390,000	405,000	1,340,000	1,375,000	1,390,000	1,425,000	1,485,000	1,540,000	1,575,000	1,600,000								
263	Interest			\$ 210,331	396,731	388,781	371,331	344,181	316,531	288,381	259,281	229,031	197,881	166,131								
				\$ 5,858,101	6,454,039	9,457,683	10,157,902	10,190,440	10,216,188	10,248,438	10,277,011	10,279,703	8,388,444	8,365,498								
264	<b>Total Operating Expense</b>			\$ 20,209,369	\$ 20,440,242	\$ 25,230,975	\$ 26,232,180	\$ 26,572,991	\$ 26,914,478	\$ 27,270,110	\$ 27,629,895	\$ 27,971,820	\$ 26,428,007	\$ 26,760,921	</							

Schedule 6. Cost Escalation Factors

Operating Cost Escalation Factors

Schedule 6

	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
1 Capitalized Asset Credit	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2 Interest On Impr Chgs/SA	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
3 Permanent Time Worked	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
4 Temporary Pay	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
5 Temporary Pay Overtime	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
6 Overtime Paid-Permanent	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
7 Professional Services	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
8 Legal Expenses	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
9 Rent City Vehicles	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
10 Contracted Services	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
11 Contracted Temp Empl Services	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
12 Printing	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
13 Operating Transfers	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
14 Operating Transfers 0074	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
15 Operating Transfers 0081	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
16 Advertising	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
17 Governmental Services	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
18 Postage	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
19 Materials & Supplies	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
20 Tree Purchases	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
21 Deferred Comp Contributions	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
22 Life Insurance	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
23 Medical Insurance	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
24 Disability Insurance	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
25 Social Security-Employer	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
26 Dental Insurance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
27 Optical Insurance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
28 Transfer To Other Funds	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
29 Unemployment Compensation	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
30 Bonded Project User Fees	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
31 Contingency	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
32 Burden	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
33 Capitalized Burden Credit	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
34 Construction	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
35 Capitalized asset credit - Personal servi	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
36 Construction Reimbursement	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
37 Bond/Note Proceeds	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
38 Prior Year Fund Balance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
39 Improvement Charges	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
40 Other Paid Time Off	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
41 Vacation Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
42 Comp Time Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
43 Personal Leave Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
44 Sick Time Used	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
45 Holiday	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
46 Severance Pay	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
47 Annual Sick Leave Payout	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
48 Longevity Pay	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
49 Benefit Waiver Pay	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
50 Equipment Allowance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
51 Uniform Allowance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
52 Telecommunications	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
53 Rent Outside V ehicles/Mileage	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
54 Software	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
55 Software Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
56 Conference Training & Travel	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
57 Educational Reimbursement	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
58 Background Check/Drug Screen	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
59 Employee Recognition	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
60 Property Plant & Equipment < \$5,000	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
61 Retiree Health Savings Account	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
62 Veba Funding	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
63 Retiree Medical Insurance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
64 Workers Comp	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
65 Retirement Contribution	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
66 Dues & Licenses	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
67 Transfer To IT Fund	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
68 Other Paid City Business	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
69 Hrs Attributable/Workers Comp	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
70 Building Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
71 Equipment Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
72 Radio Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
73 Radio System Service Charge	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
74 Fleet Maintenance & Repair	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
75 Fleet Fuel	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
76 Fleet Depreciation	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
77 Fleet Management	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
78 Tipping Fees	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
79 Training	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
80 Software Purchase	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
81 Non-Employee Travel	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
82 Uniforms & Accessories	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
83 Safety Related supplies	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
84 Recycled Materials	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
85 Inventory/Cost Of Goods Sold	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
86 Depreciation	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
87 ACA Health Care	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
88 Insurance Premiums	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
89 Transfer To Maintenance Facilities	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
90 Contrib Capital - Shared Costs	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
91 Equipment	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
92 Sale Of Fixed Assets	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
93 Repair Parts	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
94 Repair Parts Regular	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
95 Repair Parts Outside Repairs	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
96 Garage Repairs Garage Repairs	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%

Schedule 6. Cost Escalation Factors

	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
97 Replacement CR/Field	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
98 Accrued Leave Balances Changes	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
99 U.S. Environmental Protection Agency	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
100 Operating Transfers Art in Public Places	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
101 Bad Debts	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
102 Interest	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
103 Amortized Discount/Bonds	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
104 Paying Agent Fee	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
105 Paying Agent Fee/County	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
106 Handling & Storage/County	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
107 Replacement Cost Plant	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
108 Replacement Cost Field	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
109 Excess Pension Refund	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
110 Municipal Service Charges	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
111 Change in Accrued Pension Liability	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
112 Gain/Loss Sale of Fixed Asset	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
113 Bad Debt Recovery	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
114 Miscellaneous	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
115 Transfer To Other Agencies	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
116 Structures & Improvements	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
117 Infrastructure	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
118 Refund Prior Year Expense	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
119 Excess Comp Time Paid	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
120 Natural Gas	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
121 Other Fuels	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
122 Electricity	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
123 Water	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
124 Chemicals	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
125 Equipment Parts/Maintenance	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
126 Purchasing Card-Pass Thru	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
127 Employer Match for Defined Contribut	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
128 Replacement CR/Plant	2.30%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%	2.40%
129 Default Inflation Factor (if expense not	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%

Forecast of Net Revenues and Debt Service Coverage

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
<b>1 Rate Revenue Subject to Growth &amp; Rate Adjustments</b>											
2 Volume Rate Revenue	\$ 21,211,164	21,211,164	21,032,815	22,277,634	23,594,395	24,858,564	26,191,108	27,595,757	27,365,814	27,138,453	26,913,641
3 Additional Rate Revenue From Growth	-	(178,349)	(65,827)	(71,354)	(198,319)	(208,342)	(218,875)	(229,943)	(227,361)	(224,812)	(222,294)
4 Proposed Sewer Rate Adjustments	0.00%	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%
5 Additional Rate Revenue From Rate Adjustment	-	-	1,467,689	1,554,440	1,637,725	1,725,516	1,818,056	-	-	-	-
6 Price Elasticity Adjustment	-	-	(157,043)	(166,325)	(175,237)	(184,630)	(194,532)	-	-	-	-
7 Base Rate Revenue	\$ 2,080,285	2,080,285	2,205,103	2,387,284	2,584,165	2,765,057	2,958,611	3,165,714	3,165,714	3,165,714	3,165,714
8 Additional Rate Revenue From Growth	-	-	26,004	27,824	-	-	-	-	-	-	-
9 Proposed Sewer Rate Adjustments	0.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%
10 Additional Rate Revenue From Rate Adjustment	-	124,817	156,177	169,058	180,892	193,554	207,103	-	-	-	-
<b>11 Total Rate Revenue</b>	<b>\$ 23,291,450</b>	<b>23,237,918</b>	<b>24,664,918</b>	<b>26,178,560</b>	<b>27,623,622</b>	<b>29,149,719</b>	<b>30,761,471</b>	<b>30,531,528</b>	<b>30,304,167</b>	<b>30,079,355</b>	<b>29,857,061</b>
<b>12 Plus: Other Operating Revenues</b>											
13 Other Operating Revenues	\$ 324,201	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765	265,765
<b>14 Equals: Total Operating Revenue</b>	<b>\$ 23,615,651</b>	<b>23,503,683</b>	<b>24,930,683</b>	<b>26,444,325</b>	<b>27,889,387</b>	<b>29,415,484</b>	<b>31,027,236</b>	<b>30,797,293</b>	<b>30,569,932</b>	<b>30,345,120</b>	<b>30,122,826</b>
<b>15 Less: Operating Expenses</b>											
16 Personal Services	\$ (3,772,860)	(3,754,991)	(3,771,353)	(3,862,973)	(3,956,820)	(4,052,948)	(4,151,412)	(4,252,269)	(4,355,577)	(4,461,395)	(4,569,786)
17 Variable O&M	(2,362,744)	(1,881,625)	(1,955,551)	(2,002,516)	(2,050,609)	(2,099,858)	(2,150,288)	(2,201,931)	(2,254,813)	(2,308,966)	(2,364,419)
18 Fixed O&M	(6,776,520)	(7,209,928)	(8,897,756)	(9,060,000)	(9,226,174)	(9,396,372)	(9,570,693)	(9,749,235)	(9,932,101)	(10,119,397)	(10,311,228)
<b>18 Equals: Net Operating Income</b>	<b>\$ 10,703,527</b>	<b>10,657,139</b>	<b>10,306,023</b>	<b>11,518,835</b>	<b>12,655,783</b>	<b>13,866,306</b>	<b>15,154,843</b>	<b>14,593,859</b>	<b>14,027,440</b>	<b>13,455,362</b>	<b>12,877,393</b>
<b>19 Plus: Non-Operating Income/(Expense)</b>											
20 Non-Operating Revenue	\$ 1,500	1,050	3,451,465	3,451,465	1,050	1,050	1,050	1,050	1,050	1,050	1,050
21 Interest Income	384,138	323,650	290,946	291,790	297,260	301,650	311,360	320,387	314,826	312,451	328,659
<b>22 Equals: Net Income</b>	<b>\$ 11,089,165</b>	<b>10,981,838</b>	<b>14,048,434</b>	<b>15,262,090</b>	<b>12,954,092</b>	<b>14,169,006</b>	<b>15,467,252</b>	<b>14,915,296</b>	<b>14,343,317</b>	<b>13,768,863</b>	<b>13,207,101</b>
<b>23 Cash Flow Test</b>											
24 Net Income Available For Debt Service	\$ 11,089,165	10,981,838	14,048,434	15,262,090	12,954,092	14,169,006	15,467,252	14,915,296	14,343,317	13,768,863	13,207,101
25 Transfers In	-	-	-	-	-	-	-	-	-	-	-
26 Transfers Out	(1,042,363)	(1,108,409)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)	(1,142,132)
27 Senior Debt Service	(2,444,218)	(3,013,619)	(3,213,709)	(4,215,326)	(4,628,006)	(4,834,425)	(4,866,183)	(4,862,933)	(4,870,315)	(2,989,021)	(2,982,271)
28 State Revolving Loans	(3,413,883)	(3,440,419)	(6,449,564)	(6,482,883)	(6,529,745)	(6,564,820)	(6,598,395)	(6,630,217)	(6,625,527)	(6,615,563)	(6,599,367)
29 Capital Outlay	(396,781)	(31,250)	(6,500)	(6,656)	(6,816)	(6,979)	(7,147)	(7,318)	(7,494)	(7,674)	(7,858)
<b>30 Net Cash Flow</b>	<b>\$ 3,791,921</b>	<b>3,388,141</b>	<b>3,236,529</b>	<b>3,415,094</b>	<b>647,393</b>	<b>1,620,650</b>	<b>2,853,396</b>	<b>2,272,695</b>	<b>1,697,848</b>	<b>3,014,474</b>	<b>2,475,473</b>
<b>31 Unrestricted Working Capital Reserve Fund Test</b>											
32 Balance At Beginning Of Fiscal Year	\$ 20,041,407	14,172,544	7,943,685	7,312,330	7,462,745	7,616,802	7,774,589	9,451,322	9,580,096	8,339,160	9,105,117
33 Cash Flow Surplus/(Deficit)	3,791,921	3,388,141	3,236,529	3,415,094	647,393	1,620,650	2,853,396	2,272,695	1,697,848	3,014,474	2,475,473
34 Reserve Fund Balance Used for Cash Flow Deficit	-	-	-	-	-	-	-	-	-	-	-
34 Projects Paid with Cash	-	-	-	-	-	-	-	-	-	-	-
35 Projects Paid with Reserve Fund Balance	(9,660,784)	(9,617,000)	(3,867,883)	(3,264,679)	(493,336)	(1,462,863)	(1,176,663)	(2,143,921)	(2,938,784)	(2,248,517)	-
<b>36 Balance At End Of Fiscal Year</b>	<b>\$ 14,172,544</b>	<b>7,943,685</b>	<b>7,312,330</b>	<b>7,462,745</b>	<b>7,616,802</b>	<b>7,774,589</b>	<b>9,451,322</b>	<b>9,580,096</b>	<b>8,339,160</b>	<b>9,105,117</b>	<b>11,580,590</b>
37 Minimum Working Capital Reserve Target	6,456,062	6,423,272	7,312,330	7,462,745	7,616,802	7,774,589	7,936,197	8,101,717	8,271,246	8,444,879	8,622,716
<b>38 Excess Working Capital Above Target</b>	<b>\$ 7,716,482</b>	<b>1,520,413</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,515,125</b>	<b>1,478,378</b>	<b>67,915</b>	<b>660,238</b>	<b>2,957,874</b>

**Capital Project Funding Summary**

**Schedule 8**

<u>Capital Project Funding Sources:</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Cash Funded	\$ -	-	-	-	-	-	-	-	-	-	-
Reserve Balance Funded	9,660,784	9,617,000	3,867,883	3,264,679	493,336	1,462,863	1,176,663	2,143,921	2,938,784	2,248,517	-
Debt Proceeds	-	-	5,437,137	5,443,188	7,319,662	1,711,072	-	-	-	-	-
<b>Total Projects Paid</b>	<b>\$ 9,660,784</b>	<b>9,617,000</b>	<b>9,305,020</b>	<b>8,707,867</b>	<b>7,812,998</b>	<b>3,173,935</b>	<b>1,176,663</b>	<b>2,143,921</b>	<b>2,938,784</b>	<b>2,248,517</b>	<b>-</b>
Total CIP Input	9,660,784	9,617,000	9,305,020	8,707,867	7,812,998	3,173,935	1,176,663	2,143,921	2,938,784	2,248,517	-
Variance	\$ -	-	-	-	-	-	-	-	-	-	-

Schedule 9. Funding Summary by Fund

**Funding Summary by Fund**

**Schedule 9**

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
<b><u>EQUIPMENT RESERVE</u></b>											
Balance at the Beginning of the Fiscal Year	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Additional Annual Revenues	-	-	-	-	-	-	-	-	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Less: Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Total Amount Available for Projects	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Amount Paid for Projects	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000	10,913,000
Minimum Fund Balance	-	-	-	-	-	-	-	-	-	-	-
Plus: Interest Earnings	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000	109,000
Less: Interest Allocated to Cash Flow	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)	(109,000)
<b>Balance at End of Fiscal Year</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>	<b>\$ 10,913,000</b>
<b><u>REVENUE FUND</u></b>											
Balance at the Beginning of the Fiscal Year	\$ 20,041,407	14,172,544	7,943,685	7,312,330	7,462,745	7,616,802	7,774,589	9,451,322	9,580,096	8,339,160	9,105,117
Additional Annual Revenues	3,791,921	3,388,141	3,236,529	3,415,094	647,393	1,620,650	2,853,396	2,272,695	1,697,848	3,014,474	2,475,473
Less: Cash-Funded Capital Projects	-	-	-	-	-	-	-	-	-	-	-
Less: Payment of Debt Service	-	-	-	-	-	-	-	-	-	-	-
Subtotal	\$ 23,833,328	17,560,685	11,180,213	10,727,424	8,110,138	9,237,452	10,627,985	11,724,016	11,277,944	11,353,634	11,580,590
Less: Minimum Fund Balance	(6,456,062)	(6,423,272)	(7,312,330)	(7,462,745)	(7,616,802)	(9,237,452)	(9,783,910)	(9,994,171)	(10,209,524)	(10,430,092)	(10,656,000)
Total Amount Available for Projects	\$ 17,377,266	11,137,413	3,867,883	3,264,679	493,336	-	844,074	1,729,845	1,068,420	923,542	924,590
Amount Paid for Projects	(9,660,784)	(9,617,000)	(3,867,883)	(3,264,679)	(493,336)	(1,462,863)	(1,176,663)	(2,143,921)	(2,938,784)	(2,248,517)	-
Subtotal	\$ 7,716,482	1,520,413	-	-	-	(1,462,863)	(332,589)	(414,076)	(1,870,364)	(1,324,975)	924,590
Minimum Fund Balance	6,456,062	6,423,272	7,312,330	7,462,745	7,616,802	9,237,452	9,783,910	9,994,171	10,209,524	10,430,092	10,656,000
Plus: Interest Earnings	171,070	110,581	76,280	73,875	75,398	76,957	86,130	95,157	89,596	87,221	103,429
Less: Interest Allocated to Cash Flow	(171,070)	(110,581)	(76,280)	(73,875)	(75,398)	(76,957)	(86,130)	(95,157)	(89,596)	(87,221)	(103,429)
<b>Balance at End of Fiscal Year</b>	<b>\$ 14,172,544</b>	<b>\$ 7,943,685</b>	<b>\$ 7,312,330</b>	<b>\$ 7,462,745</b>	<b>\$ 7,616,802</b>	<b>\$ 7,774,589</b>	<b>\$ 9,451,322</b>	<b>\$ 9,580,096</b>	<b>\$ 8,339,160</b>	<b>\$ 9,105,117</b>	<b>\$ 11,580,590</b>



Schedule 10. Long-Term Borrowing Projections

**Long-Term Borrowing Projections**

**Schedule 10**

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>
Term (Years)	30	30	30	30	30	30	30	30	30	30	30
Interest Rate	3.00%	3.25%	3.50%	3.75%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%
<b><u>Sources of Funds</u></b>											
Par Amount	\$0	-	5,873,993	5,891,455	7,937,433	1,855,484	-	-	-	-	-
<b><u>Uses of Funds</u></b>											
Proceeds	\$0	-	5,437,137	5,443,188	7,319,662	1,711,072	-	-	-	-	-
Cost of Issuance	1.50% of Par	-	117,480	117,829	158,749	37,110	-	-	-	-	-
Underwriter's Discount	\$0.00 per \$1,000	-	-	-	-	-	-	-	-	-	-
Bond Insurance	- times total Debt Service	-	-	-	-	-	-	-	-	-	-
Capitalized Interest	- Years Interest	-	-	-	-	-	-	-	-	-	-
Debt Service Surety	0.00% of Debt Service	-	-	-	-	-	-	-	-	-	-
Debt Service Reserve	1 Years of Debt Service	-	319,377	330,438	459,023	107,303	-	-	-	-	-
<b><u>Other Costs</u></b>											
Total Uses	\$0	-	5,873,993	5,891,455	7,937,433	1,855,484	-	-	-	-	-
1 Year Interest	\$0	-	205,590	220,930	317,497	74,219	-	-	-	-	-
Annual Debt Service	-	-	319,377	330,438	459,023	107,303	-	-	-	-	-
Total Debt Service	\$0	-	9,581,305	9,913,131	13,770,676	3,219,085	-	-	-	-	-
<b>Cumulative Annual New Debt Service <sup>(1)</sup></b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 205,590</b>	<b>\$ 540,306</b>	<b>\$ 967,312</b>	<b>\$ 1,183,056</b>	<b>\$ 1,216,140</b>	<b>\$ 1,216,140</b>	<b>\$ 1,216,140</b>	<b>\$ 1,216,140</b>	<b>\$ 1,216,140</b>

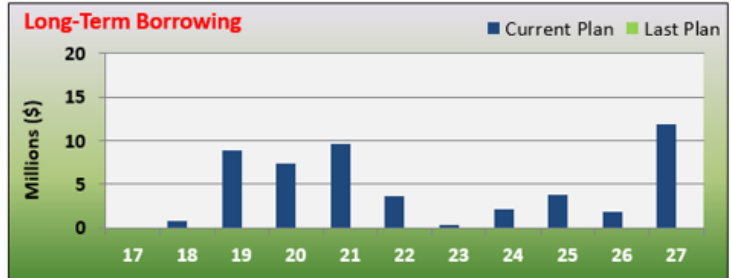
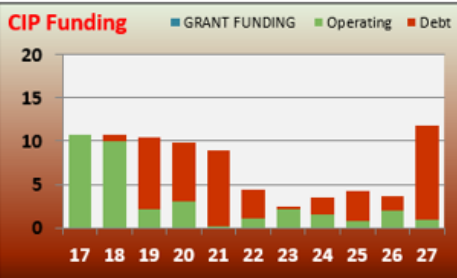
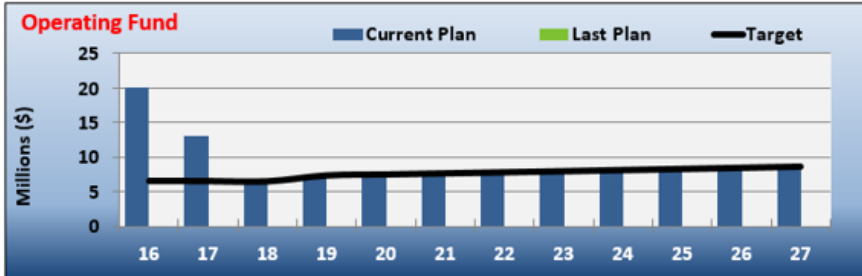
(1) Interest-only payment required in first year of issuance.

**FAMS - Control Panel**

**Schedule 11**

**FINANCIAL ANALYSIS AND MANAGEMENT SYSTEM (FAMS) SUMMARY**  
**The City of Ann Arbor (Sewer)**

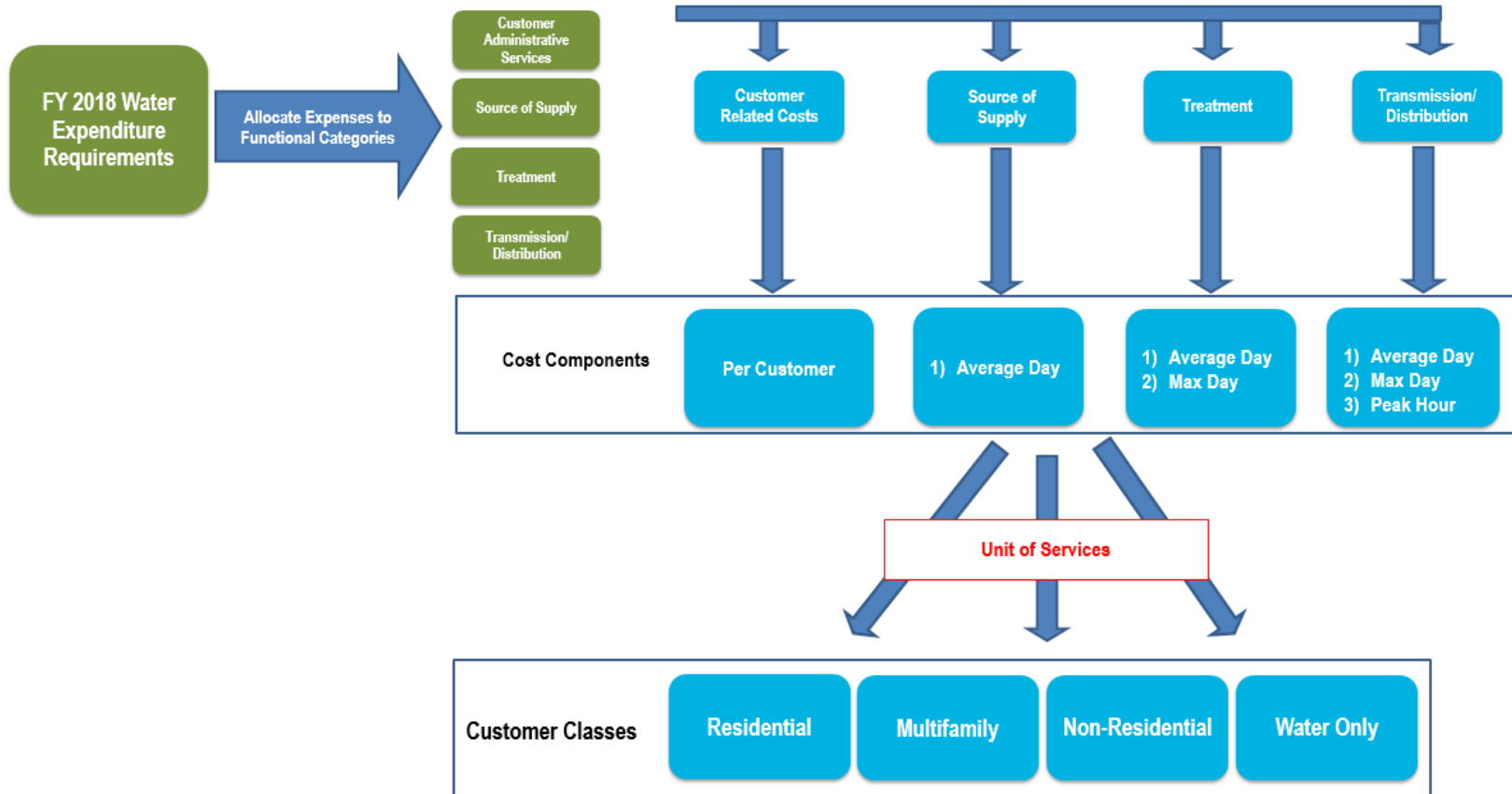
	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Cumulative Change		
<b>Fixed Charges</b>	0.00%	0.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%	FY 2022: 37.73%	FY 2027: 47.36%
<b>Volume Charges</b>	0.00%	6.00%	7.00%	7.00%	7.00%	7.00%	7.00%	0.00%	0.00%	0.00%	0.00%			
<b>Rate Covenant</b>	4.53	3.61	4.18	3.41	2.60	2.68	2.89	2.74	2.54	3.53	3.00			
<b>CIP \$ Redistribution</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
<b>CIP Execution %</b>	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			
<b>Operating Reserve Mo</b>	6	6	6	6	6	6	6	6	6	6	6			
<b>Quarterly Bill</b>	\$76.05	\$79.95	\$85.54	\$91.48	\$97.93	\$104.74	\$112.07	\$112.07	\$112.07	\$112.07	\$112.07			
<b>Change \$</b>		\$3.90	\$5.59	\$5.94	\$6.45	\$6.81	\$7.33	\$0.00	\$0.00	\$0.00	\$0.00			
<b>Change %</b>		5.13%	6.99%	6.94%	7.05%	6.95%	7.00%	0.00%	0.00%	0.00%	0.00%			



## APPENDIX B1: COST OF SERVICE ALLOCATION SUPPORTING SCHEDULES - WATER

- Schedule 1 Cost Allocation Framework
- Schedule 2 Water System Operating & Debt Service Expense Allocation to Functions
- Schedule 3 Allocation of Other Water Revenues
- Schedule 4 Water Functional Cost Allocations
- Schedule 5 Functional Allocation Summary
- Schedule 6 Water Revenue Requirement Allocations

Schedule 1. Cost Allocation Framework



\*Only receives partial allocation of transmission and distribution cost associated with backbone infrastructure

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

Water System Operating & Debt Service Expense Allocation to Functions

Account	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Transmission/ Meters/Services		Fire Protection % Allocation	Total % Allocation	Supply \$ Allocation	Treatment \$ Allocation	Transmission/Distribution \$ Allocation	Customer \$ Allocation	Fire Protection \$ Allocation
					% Allocation	% Allocation							
	\$ -	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,733,092	6,680,168	7,654,889	345,405	95,565
0042-046-8500-1000-1100 - Permanent Time Worked	\$ 73,712	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	7,371	3,686	55,284	7,371	-
0042-046-8500-1000-1200 - Temporary Pay	\$ 31,843	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	3,184	1,592	23,882	3,184	-
0042-046-8500-1000-1741 - Longevity Pay	\$ 330	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	33	17	248	33	-
0042-046-8500-1000-1800 - Equipment Allowance	\$ 234	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	23	12	176	23	-
0042-046-8500-1000-2100 - Professional Services	\$ 6,000	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	600	300	4,500	600	-
0042-046-8500-1000-2240 - Telecommunications	\$ 700	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	70	35	525	70	-
0042-046-8500-1000-2410 - Rent City Vehicles	\$ 500	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	50	25	375	50	-
0042-046-8500-1000-2421 - Fleet Maintenance & Repair	\$ 1,445	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	145	72	1,084	145	-
0042-046-8500-1000-2422 - Fleet Fuel	\$ 501	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	50	25	376	50	-
0042-046-8500-1000-2423 - Fleet Depreciation	\$ 3,787	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	379	189	2,840	379	-
0042-046-8500-1000-2424 - Fleet Management	\$ 173	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	17	9	130	17	-
0042-046-8500-1000-2430 - Contracted Services	\$ 1,000	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	100	50	750	100	-
0042-046-8500-1000-2500 - Printing	\$ 2,400	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	240	120	1,800	240	-
0042-046-8500-1000-2640 - Software	\$ 400	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	40	20	300	40	-
0042-046-8500-1000-2660 - Software Maintenance	\$ 400	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	40	20	300	40	-
0042-046-8500-1000-2700 - Conference Training & Travel	\$ 5,200	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	520	260	3,900	520	-
0042-046-8500-1000-2908 - Background Check/Drug Screen	\$ 100	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	10	5	75	10	-
0042-046-8500-1000-3100 - Postage	\$ 400	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	40	20	300	40	-
0042-046-8500-1000-3300 - Uniforms & Accessories	\$ 50	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	5	3	38	5	-
0042-046-8500-1000-3400 - Materials & Supplies	\$ 1,000	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	100	50	750	100	-
0042-046-8500-1000-3440 - Property Plant & Equipment <\$5,000	\$ 500	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	50	25	375	50	-
0042-046-8500-1000-4220 - Life Insurance	\$ 164	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	16	8	123	16	-
0042-046-8500-1000-4230 - Medical Insurance	\$ 8,660	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	866	433	6,495	866	-
0042-046-8500-1000-4234 - Disability Insurance	\$ 298	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	30	15	224	30	-
0042-046-8500-1000-4237 - Retiree Health Savings Account	\$ 249	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	25	12	187	25	-
0042-046-8500-1000-4238 - Veba Funding	\$ 9,530	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	953	477	7,148	953	-
0042-046-8500-1000-4239 - Retiree Medical Insurance	\$ 10,128	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,013	506	7,596	1,013	-
0042-046-8500-1000-4240 - Workers Comp	\$ 637	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	64	32	478	64	-
0042-046-8500-1000-4250 - Social Security-Employer	\$ 5,662	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	566	283	4,247	566	-
0042-046-8500-1000-4259 - Retirement Contribution	\$ 17,103	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,710	855	12,827	1,710	-
0042-046-8500-1000-4270 - Dental Insurance	\$ 1,014	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	101	51	761	101	-
0042-046-8500-1000-4280 - Optical Insurance	\$ 119	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	12	6	89	12	-
0042-046-8500-1000-4300 - Dues & Licenses	\$ 1,148	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	115	57	861	115	-
0042-046-8500-1000-4423 - Transfer To IT Fund	\$ 126,759	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	12,676	6,338	95,069	12,676	-
0042-046-8500-1000-4440 - Unemployment Compensation	\$ 204	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	20	10	153	20	-
0042-046-8500-3360-1100 - Permanent Time Worked	\$ 14,670	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,467	734	11,003	1,467	-
0042-046-8500-3360-1800 - Equipment Allowance	\$ 156	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	16	8	117	16	-
0042-046-8500-3360-4220 - Life Insurance	\$ 40	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	4	2	30	4	-
0042-046-8500-3360-4230 - Medical Insurance	\$ 2,227	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	223	111	1,670	223	-
0042-046-8500-3360-4234 - Disability Insurance	\$ 100	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	10	5	75	10	-
0042-046-8500-3360-4238 - Veba Funding	\$ 3,176	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	318	159	2,382	318	-
0042-046-8500-3360-4240 - Workers Comp	\$ 132	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	13	7	99	13	-
0042-046-8500-3360-4250 - Social Security-Employer	\$ 1,133	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	113	57	850	113	-
0042-046-8500-3360-4259 - Retirement Contribution	\$ 3,388	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	339	169	2,541	339	-
0042-046-8500-3360-4270 - Dental Insurance	\$ 169	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	17	8	127	17	-
0042-046-8500-3360-4280 - Optical Insurance	\$ 20	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	2	1	15	2	-
0042-046-8500-3360-4440 - Unemployment Compensation	\$ 45	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	5	2	34	5	-
0042-046-8500-7019-1100 - Permanent Time Worked	\$ -	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-046-8500-7019-1800 - Equipment Allowance	\$ 20,747	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	20,747	-
0042-046-8500-7019-4220 - Life Insurance	\$ 195	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	195	-
0042-046-8500-7019-4230 - Medical Insurance	\$ 58	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	58	-
0042-046-8500-7019-4234 - Disability Insurance	\$ 2,961	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	2,961	-
0042-046-8500-7019-4234 - Disability Insurance	\$ 125	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	125	-

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

0042-046-8500-7021-4238 - Veba Funding	\$	6,036	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	167	2,134	3,660	76	-
0042-046-8500-7021-4240 - Workers Comp	\$	461	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	13	163	279	6	-
0042-046-8500-7021-4250 - Social Security-Employer	\$	2,673	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	74	945	1,621	34	-
0042-046-8500-7021-4259 - Retirement Contribution	\$	8,001	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	221	2,829	4,851	100	-
0042-046-8500-7021-4270 - Dental Insurance	\$	338	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	9	119	205	4	-
0042-046-8500-7021-4280 - Optical Insurance	\$	40	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	1	14	24	1	-
0042-046-8500-7021-4440 - Unemployment Compensation	\$	86	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	2	30	52	1	-
0042-046-8500-7022 - Water Supply System-Systems Planning-System Planning-Development Process	\$	-	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	-	-	-	-	-
0042-046-8500-7022-1100 - Permanent Time Worked	\$	97,252	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	9,725	4,863	72,939	9,725	-
0042-046-8500-7022-1721 - Annual Sick Leave Payout	\$	2,936	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	294	147	2,202	294	-
0042-046-8500-7022-1721 - Benefit Waiver Pay	\$	270	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	27	14	203	27	-
0042-046-8500-7022-1800 - Equipment Allowance	\$	908	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	91	45	681	91	-
0042-046-8500-7022-4220 - Life Insurance	\$	250	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	25	13	188	25	-
0042-046-8500-7022-4230 - Medical Insurance	\$	13,243	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,324	662	9,932	1,324	-
0042-046-8500-7022-4234 - Disability Insurance	\$	594	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	59	30	446	59	-
0042-046-8500-7022-4237 - Retiree Health Savings Account	\$	407	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	41	20	305	41	-
0042-046-8500-7022-4238 - Veba Funding	\$	14,296	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,430	715	10,722	1,430	-
0042-046-8500-7022-4240 - Workers Comp	\$	764	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	76	38	573	76	-
0042-046-8500-7022-4250 - Social Security-Employer	\$	7,734	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	773	387	5,801	773	-
0042-046-8500-7022-4259 - Retirement Contribution	\$	23,144	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	2,314	1,157	17,358	2,314	-
0042-046-8500-7022-4270 - Dental Insurance	\$	1,341	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	134	67	1,006	134	-
0042-046-8500-7022-4280 - Optical Insurance	\$	158	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	16	8	119	16	-
0042-046-8500-7022-4440 - Unemployment Compensation	\$	326	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	33	16	245	33	-
0042-046-8500-7023 - Water Supply System-Systems Planning-System Planning-Program Management	\$	-	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	-	-	-	-	-
0042-046-8500-7023-1100 - Permanent Time Worked	\$	4,215	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	422	211	3,161	422	-
0042-046-8500-7023-1800 - Equipment Allowance	\$	39	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	4	2	29	4	-
0042-046-8500-7023-4220 - Life Insurance	\$	10	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1	1	8	1	-
0042-046-8500-7023-4230 - Medical Insurance	\$	25	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	3	1	19	3	-
0042-046-8500-7023-4234 - Disability Insurance	\$	25	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	3	1	19	3	-
0042-046-8500-7023-4238 - Veba Funding	\$	794	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	79	40	596	79	-
0042-046-8500-7023-4240 - Workers Comp	\$	79	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	8	4	59	8	-
0042-046-8500-7023-4250 - Social Security-Employer	\$	326	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	33	16	245	33	-
0042-046-8500-7023-4259 - Retirement Contribution	\$	974	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	97	49	731	97	-
0042-046-8500-7023-4440 - Unemployment Compensation	\$	11	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1	1	8	1	-
0042-046-8500-7024 - Water Supply System-Systems Planning-System Planning-Asset Management	\$	-	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	-	-	-	-	-
0042-046-8500-7024-1100 - Permanent Time Worked	\$	118,785	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	11,879	5,939	89,089	11,879	-
0042-046-8500-7024-1800 - Equipment Allowance	\$	1,326	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	133	66	995	133	-
0042-046-8500-7024-4220 - Life Insurance	\$	348	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	35	17	261	35	-
0042-046-8500-7024-4230 - Medical Insurance	\$	16,877	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,688	844	12,658	1,688	-
0042-046-8500-7024-4234 - Disability Insurance	\$	845	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	85	42	634	85	-
0042-046-8500-7024-4237 - Retiree Health Savings Account	\$	815	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	82	41	611	82	-
0042-046-8500-7024-4238 - Veba Funding	\$	11,437	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	1,144	572	8,578	1,144	-
0042-046-8500-7024-4240 - Workers Comp	\$	1,301	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	130	65	976	130	-
0042-046-8500-7024-4250 - Social Security-Employer	\$	9,189	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	919	459	6,892	919	-
0042-046-8500-7024-4259 - Retirement Contribution	\$	27,438	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	2,744	1,372	20,579	2,744	-
0042-046-8500-7024-4270 - Dental Insurance	\$	1,273	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	127	64	955	127	-
0042-046-8500-7024-4280 - Optical Insurance	\$	182	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	18	9	137	18	-
0042-046-8500-7024-4440 - Unemployment Compensation	\$	386	Management Estimate	10.00%	5.00%	75.00%	10.00%	0.00%	100%	39	19	290	39	-
0042-061-6100-1000 - Water Supply System-Public Works-Public Works-Administration	\$	-	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-061-6100-1000-1100 - Permanent Time Worked	\$	86,345	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	86,345	-	-
0042-061-6100-1000-1721 - Annual Sick Leave Payout	\$	248	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	248	-	-
0042-061-6100-1000-1741 - Longevity Pay	\$	390	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	390	-	-
0042-061-6100-1000-1800 - Equipment Allowance	\$	974	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	974	-	-
0042-061-6100-1000-2100 - Professional Services	\$	1,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,500	-	-
0042-061-6100-1000-2240 - Telecommunications	\$	10,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	10,000	-	-
0042-061-6100-1000-2421 - Fleet Maintenance & Repair	\$	500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	500	-	-
0042-061-6100-1000-2422 - Fleet Fuel	\$	308	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	308	-	-
0042-061-6100-1000-2423 - Fleet Depreciation	\$	3,274	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	3,274	-	-
0042-061-6100-1000-2424 - Fleet Management	\$	173	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	173	-	-
0042-061-6100-1000-2850 - Advertising	\$	200	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	200	-	-
0042-061-6100-1000-2951 - Employee Recognition	\$	700	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	700	-	-
0042-061-6100-1000-3100 - Postage	\$	50	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	50	-	-
0042-061-6100-1000-3300 - Uniforms & Accessories	\$	4,425	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	4,425	-	-
0042-061-6100-1000-3400 - Materials & Supplies	\$	250	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	250	-	-
0042-061-6100-1000-4220 - Life Insurance	\$	181	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	181	-	-
0042-061-6100-1000-4230 - Medical Insurance	\$	16,636	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	16,636	-	-
0042-061-6100-1000-4234 - Disability Insurance	\$	265	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	265	-	-
0042-061-6100-1000-4237 - Retiree Health Savings Account	\$	216	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	216	-	-
0042-061-6100-1000-4238 - Veba Funding	\$	14,137	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	14,137	-	-
0042-061-6100-1000-4240 - Workers Comp	\$	408	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	408	-	-
0042-061-6100-1000-4250 - Social Security-Employer	\$	6,637	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	6,637	-	-
0042-061-6100-1000-4259 - Retirement Contribution	\$	20,093	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	20,093	-	-
0042-061-6100-1000-4260 - Insurance Premiums	\$	10,541	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	10,541	-	-
0042-061-6100-1000-4270 - Dental Insurance	\$	1,296	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,296	-	-
0042-061-6100-1000-4280 - Optical Insurance	\$	151	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	151	-	-

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

0042-061-6100-1100 - Water Supply System-Public Works-Public Works-Fringe Benefits	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-1100-4239 - Retiree Medical Insurance	\$ 182,304	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	182,304	-
0042-061-6100-1372 - Water Supply System-Public Works-Public Works-Revolving Supply	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-4500 - Water Supply System-Public Works-Public Works-Engineering - Others	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-4500-1100 - Permanent Time Worked	\$ 33,866	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	33,866	-
0042-061-6100-4500-1200 - Temporary Pay	\$ 3,094	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	3,094	-
0042-061-6100-4500-1800 - Equipment Allowance	\$ 312	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	312	-
0042-061-6100-4500-4220 - Life Insurance	\$ 80	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	80	-
0042-061-6100-4500-4230 - Medical Insurance	\$ 5,873	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	5,873	-
0042-061-6100-4500-4234 - Disability Insurance	\$ 199	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	199	-
0042-061-6100-4500-4237 - Retiree Health Savings Account	\$ 332	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	332	-
0042-061-6100-4500-4240 - Workers Comp	\$ 229	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	229	-
0042-061-6100-4500-4250 - Social Security-Employer	\$ 2,614	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	2,614	-
0042-061-6100-4500-4259 - Retirement Contribution	\$ 7,823	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	7,823	-
0042-061-6100-4500-4270 - Dental Insurance	\$ 451	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	451	-
0042-061-6100-4500-4280 - Optical Insurance	\$ 53	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	53	-
0042-061-6100-4500-4440 - Unemployment Compensation	\$ 90	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	90	-
0042-061-6100-6210 - Water Supply System-Public Works-Public Works-Operations	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-6210-1100 - Permanent Time Worked	\$ 100,202	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	100,202	-
0042-061-6100-6210-1200 - Temporary Pay	\$ 10,312	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	10,312	-
0042-061-6100-6210-1401 - Overtime Paid-Permanent	\$ 10,300	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	10,300	-
0042-061-6100-6210-1741 - Longevity Pay	\$ 756	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	756	-
0042-061-6100-6210-1800 - Equipment Allowance	\$ 990	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	990	-
0042-061-6100-6210-2330 - Radio Maintenance	\$ 1,205	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,205	-
0042-061-6100-6210-2331 - Radio System Service Charge	\$ 10,636	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	10,636	-
0042-061-6100-6210-2421 - Fleet Maintenance & Repair	\$ 97,128	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	97,128	-
0042-061-6100-6210-2422 - Fleet Fuel	\$ 25,984	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	25,984	-
0042-061-6100-6210-2423 - Fleet Depreciation	\$ 126,264	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	126,264	-
0042-061-6100-6210-2424 - Fleet Management	\$ 5,536	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	5,536	-
0042-061-6100-6210-2430 - Contracted Services	\$ 250	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	250	-
0042-061-6100-6210-2700 - Conference Training & Travel	\$ 5,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	5,000	-
0042-061-6100-6210-3300 - Uniforms & Accessories	\$ 1,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,500	-
0042-061-6100-6210-3400 - Materials & Supplies	\$ 1,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,000	-
0042-061-6100-6210-4220 - Life Insurance	\$ 112	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	112	-
0042-061-6100-6210-4230 - Medical Insurance	\$ 18,648	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	18,648	-
0042-061-6100-6210-4234 - Disability Insurance	\$ 70	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	70	-
0042-061-6100-6210-4238 - Veba Funding	\$ 20,173	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	20,173	-
0042-061-6100-6210-4240 - Workers Comp	\$ 3,562	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	3,562	-
0042-061-6100-6210-4250 - Social Security-Employer	\$ 7,752	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	7,752	-
0042-061-6100-6210-4259 - Retirement Contribution	\$ 23,321	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	23,321	-
0042-061-6100-6210-4270 - Dental Insurance	\$ 1,430	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,430	-
0042-061-6100-6210-4280 - Optical Insurance	\$ 167	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	167	-
0042-061-6100-6210-4300 - Dues & Licenses	\$ 500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	500	-
0042-061-6100-6210-4424 - Transfer To Maintenance Facilities	\$ 43,861	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	43,861	-
0042-061-6100-6210-4440 - Unemployment Compensation	\$ 287	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	287	-
0042-061-6100-7010 - Water Supply System-Public Works-Public Works-Customer Service	\$ -	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-
0042-061-6100-7010-1100 - Permanent Time Worked	\$ 97,615	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	97,615	-
0042-061-6100-7010-1401 - Overtime Paid-Permanent	\$ 11,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	11,000	-
0042-061-6100-7010-1741 - Longevity Pay	\$ 900	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	900	-
0042-061-6100-7010-1800 - Equipment Allowance	\$ 1,365	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	1,365	-
0042-061-6100-7010-2240 - Telecommunications	\$ 500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	500	-
0042-061-6100-7010-2410 - Rent City Vehicles	\$ 10,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	10,000	-
0042-061-6100-7010-2430 - Contracted Services	\$ 32,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	32,500	-
0042-061-6100-7010-3400 - Materials & Supplies	\$ 17,240	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	17,240	-
0042-061-6100-7010-3440 - Property Plant & Equipment < \$5,000	\$ 654,575	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	654,575	-
0042-061-6100-7010-4220 - Life Insurance	\$ 91	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	91	-
0042-061-6100-7010-4230 - Medical Insurance	\$ 24,820	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	24,820	-
0042-061-6100-7010-4237 - Retiree Health Savings Account	\$ 623	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	623	-
0042-061-6100-7010-4238 - Veba Funding	\$ 15,884	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	15,884	-
0042-061-6100-7010-4240 - Workers Comp	\$ 3,766	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	3,766	-
0042-061-6100-7010-4250 - Social Security-Employer	\$ 7,585	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	7,585	-
0042-061-6100-7010-4259 - Retirement Contribution	\$ 22,757	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	22,757	-
0042-061-6100-7010-4270 - Dental Insurance	\$ 1,971	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	1,971	-
0042-061-6100-7010-4280 - Optical Insurance	\$ 231	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	231	-
0042-061-6100-7010-4440 - Unemployment Compensation	\$ 396	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	396	-
0042-061-6100-7031 - Water Supply System-Public Works-Public Works-Revolving Equipment	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-7031-2421 - Fleet Maintenance & Repair	\$ 43,482	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	43,482	-
0042-061-6100-7031-2422 - Fleet Fuel	\$ 14,861	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	14,861	-
0042-061-6100-7031-2423 - Fleet Depreciation	\$ 94,717	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	94,717	-
0042-061-6100-7031-2424 - Fleet Management	\$ 1,730	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	1,730	-
0042-061-6100-7033 - Water Supply System-Public Works-Public Works-DCU Maintenance	\$ -	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-
0042-061-6100-7034 - Water Supply System-Public Works-Public Works-Inspections	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-
0042-061-6100-7034-1100 - Permanent Time Worked	\$ 42,245	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	42,245	-
0042-061-6100-7034-2421 - Fleet Maintenance & Repair	\$ 6,150	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	6,150	-
0042-061-6100-7034-2422 - Fleet Fuel	\$ 104	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	104	-
0042-061-6100-7034-2423 - Fleet Depreciation	\$ 3,459	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	3,459	-
0042-061-6100-7034-2424 - Fleet Management	\$ 173	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	173	-

### Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

Account	Amount	Category	0.00%	0.00%	0.00%	100.00%	0.00%	100%						
0042-061-6100-7034-4220 - Life Insurance	\$ 20	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	20
0042-061-6100-7034-4230 - Medical Insurance	\$ 14,182	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	14,182
0042-061-6100-7034-4237 - Retiree Health Savings Account	\$ 832	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	832
0042-061-6100-7034-4240 - Workers Comp	\$ 1,590	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	1,590
0042-061-6100-7034-4250 - Social Security-Employer	\$ 3,232	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	3,232
0042-061-6100-7034-4259 - Retirement Contribution	\$ 9,759	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	9,759
0042-061-6100-7034-4270 - Dental Insurance	\$ 1,127	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	1,127
0042-061-6100-7034-4280 - Optical Insurance	\$ 130	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	130
0042-061-6100-7034-4440 - Unemployment Compensation	\$ 226	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-	226
0042-061-6100-7060 - Water Supply System-Public Works-Public Works-Outstations	\$ -	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-	-
0042-061-6100-7061 - Water Supply System-Public Works-Public Works-South Industrial Site	\$ -	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-	-
0042-061-6100-7061-2210 - Natural Gas	\$ 6,500	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	195	3,043	2,063	1,022	177	
0042-061-6100-7061-2220 - Electricity	\$ 5,250	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	158	2,458	1,666	825	143	
0042-061-6100-7061-2230 - Water	\$ 1,000	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	30	468	317	157	27	
0042-061-6100-7061-2231 - Storm Water Runoff	\$ 4,750	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	143	2,224	1,508	747	129	
0042-061-6100-7061-2410 - Rent City Vehicles	\$ 500	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	15	234	159	79	14	
0042-061-6100-7061-2430 - Contracted Services	\$ 500	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	15	234	159	79	14	
0042-061-6100-7064 - Water Supply System-Public Works-Public Works-Miss Dig	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-7064-1100 - Permanent Time Worked	\$ 75,296	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	75,296
0042-061-6100-7064-1401 - Overtime Paid-Permanent	\$ 8,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	8,000
0042-061-6100-7064-1601 - Severance Pay	\$ 10,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	10,000
0042-061-6100-7064-1741 - Longevity Pay	\$ 882	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	882
0042-061-6100-7064-1800 - Equipment Allowance	\$ 312	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	312
0042-061-6100-7064-2410 - Rent City Vehicles	\$ 15,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	15,000
0042-061-6100-7064-2660 - Software Maintenance	\$ 2,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	2,500
0042-061-6100-7064-3400 - Materials & Supplies	\$ 2,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	2,500
0042-061-6100-7064-4220 - Life Insurance	\$ 92	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	92
0042-061-6100-7064-4230 - Medical Insurance	\$ 18,012	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	18,012
0042-061-6100-7064-4238 - Veba Funding	\$ 20,173	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	20,173
0042-061-6100-7064-4240 - Workers Comp	\$ 2,884	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	2,884
0042-061-6100-7064-4250 - Social Security-Employer	\$ 5,796	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	5,796
0042-061-6100-7064-4259 - Retirement Contribution	\$ 17,598	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	17,598
0042-061-6100-7064-4270 - Dental Insurance	\$ 1,431	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,431
0042-061-6100-7064-4280 - Optical Insurance	\$ 167	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	167
0042-061-6100-7064-4300 - Dues & Licenses	\$ 1,500	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,500
0042-061-6100-7064-4440 - Unemployment Compensation	\$ 287	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	287
0042-061-6100-7067 - Water Supply System-Public Works-Public Works-Merchandising & Jobbing	\$ -	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-	-
0042-061-6100-7092 - Water Supply System-Public Works-Public Works-Maintenance - Mains	\$ -	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-7092-1100 - Permanent Time Worked	\$ 239,186	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	239,186
0042-061-6100-7092-1401 - Overtime Paid-Permanent	\$ 65,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	65,000
0042-061-6100-7092-1741 - Longevity Pay	\$ 1,338	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,338
0042-061-6100-7092-1751 - Benefit Waiver Pay	\$ 800	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	800
0042-061-6100-7092-1800 - Equipment Allowance	\$ 195	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	195
0042-061-6100-7092-2430 - Contracted Services	\$ 420,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	420,000
0042-061-6100-7092-2435 - Tipping Fees	\$ 6,300	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	6,300
0042-061-6100-7092-2700 - Conference Training & Travel	\$ 1,400	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,400
0042-061-6100-7092-3400 - Materials & Supplies	\$ 181,268	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	181,268
0042-061-6100-7092-3440 - Property Plant & Equipment < \$5,000	\$ 13,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	13,000
0042-061-6100-7092-4220 - Life Insurance	\$ 229	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	229
0042-061-6100-7092-4230 - Medical Insurance	\$ 57,160	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	57,160
0042-061-6100-7092-4237 - Retiree Health Savings Account	\$ 1,950	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,950
0042-061-6100-7092-4238 - Veba Funding	\$ 33,039	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	33,039
0042-061-6100-7092-4240 - Workers Comp	\$ 9,074	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	9,074
0042-061-6100-7092-4250 - Social Security-Employer	\$ 18,332	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	18,332
0042-061-6100-7092-4259 - Retirement Contribution	\$ 55,561	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	55,561
0042-061-6100-7092-4270 - Dental Insurance	\$ 4,540	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	4,540
0042-061-6100-7092-4280 - Optical Insurance	\$ 532	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	532
0042-061-6100-7092-4440 - Unemployment Compensation	\$ 1,002	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	1,002
0042-061-6100-7092-6600-6650 - Repair Parts Outside Repairs	\$ 7,000	Transmission/Distribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	7,000
0042-061-6100-7093 - Water Supply System-Public Works-Public Works-Maintenance - Hydrants	\$ -	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	-
0042-061-6100-7093-1100 - Permanent Time Worked	\$ 168,901	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	168,901
0042-061-6100-7093-1401 - Overtime Paid-Permanent	\$ 3,000	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	3,000
0042-061-6100-7093-1741 - Longevity Pay	\$ 1,260	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	1,260
0042-061-6100-7093-1751 - Benefit Waiver Pay	\$ 600	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	600
0042-061-6100-7093-2410 - Rent City Vehicles	\$ 1,801	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	1,801
0042-061-6100-7093-2421 - Fleet Maintenance & Repair	\$ 1,604	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	1,604
0042-061-6100-7093-2430 - Contracted Services	\$ 3,000	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	3,000
0042-061-6100-7093-3400 - Materials & Supplies	\$ 40,000	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	40,000
0042-061-6100-7093-3440 - Property Plant & Equipment < \$5,000	\$ 5,000	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	5,000
0042-061-6100-7093-4220 - Life Insurance	\$ 147	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	147
0042-061-6100-7093-4230 - Medical Insurance	\$ 37,586	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	37,586
0042-061-6100-7093-4237 - Retiree Health Savings Account	\$ 830	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	830
0042-061-6100-7093-4238 - Veba Funding	\$ 30,974	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	30,974
0042-061-6100-7093-4240 - Workers Comp	\$ 6,416	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.00%	100%	-	-	-	-	-	6,416
0042-061-6100-7093-4250 - Social Security-Employer	\$ 12,937	Management Estimate	0.00%	0.00%	5.00%	0.00%	95.							



### Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

Account ID	Description	0.00%	0.00%	100.00%	0.00%	0.00%	100%						
0042-061-6100-7094	Water Supply System-Public Works-Public Works-Maintenance - Service	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-7094-1100	Permanent Time Worked	0.00%	0.00%	100.00%	0.00%	0.00%	100%	109,737	-	-	109,737	-	-
0042-061-6100-7094-1401	Over-time Paid-Permanent	0.00%	0.00%	100.00%	0.00%	0.00%	100%	4,000	-	-	4,000	-	-
0042-061-6100-7094-1741	Longevity Pay	0.00%	0.00%	100.00%	0.00%	0.00%	100%	720	-	-	720	-	-
0042-061-6100-7094-1751	Benefit Waiver Pay	0.00%	0.00%	100.00%	0.00%	0.00%	100%	600	-	-	600	-	-
0042-061-6100-7094-2410	Rent City Vehicles	0.00%	0.00%	100.00%	0.00%	0.00%	100%	15,000	-	-	15,000	-	-
0042-061-6100-7094-2430	Contracted Services	0.00%	0.00%	100.00%	0.00%	0.00%	100%	22,000	-	-	22,000	-	-
0042-061-6100-7094-3400	Materials & Supplies	0.00%	0.00%	100.00%	0.00%	0.00%	100%	20,000	-	-	20,000	-	-
0042-061-6100-7094-4220	Life Insurance	0.00%	0.00%	100.00%	0.00%	0.00%	100%	100	-	-	100	-	-
0042-061-6100-7094-4230	Medical Insurance	0.00%	0.00%	100.00%	0.00%	0.00%	100%	24,111	-	-	24,111	-	-
0042-061-6100-7094-4237	Retiree Health Savings Account	0.00%	0.00%	100.00%	0.00%	0.00%	100%	747	-	-	747	-	-
0042-061-6100-7094-4238	Veba Funding	0.00%	0.00%	100.00%	0.00%	0.00%	100%	17,472	-	-	17,472	-	-
0042-061-6100-7094-4240	Workers Comp	0.00%	0.00%	100.00%	0.00%	0.00%	100%	4,165	-	-	4,165	-	-
0042-061-6100-7094-4250	Social Security-Employer	0.00%	0.00%	100.00%	0.00%	0.00%	100%	8,405	-	-	8,405	-	-
0042-061-6100-7094-4259	Retirement Contribution	0.00%	0.00%	100.00%	0.00%	0.00%	100%	25,516	-	-	25,516	-	-
0042-061-6100-7094-4270	Dental Insurance	0.00%	0.00%	100.00%	0.00%	0.00%	100%	1,914	-	-	1,914	-	-
0042-061-6100-7094-4280	Optical Insurance	0.00%	0.00%	100.00%	0.00%	0.00%	100%	224	-	-	224	-	-
0042-061-6100-7094-4440	Unemployment Compensation	0.00%	0.00%	100.00%	0.00%	0.00%	100%	452	-	-	452	-	-
0042-070-1000-9000	Water Supply System-Public Works-Public Works-Capital Outlay	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9000-4100	Depreciation	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9000-5130	Equipment	0.00%	0.00%	100.00%	0.00%	0.00%	100%	5,000	-	-	5,000	-	-
0042-061-6100-9070	Water Supply System-Public Works-Public Works-Capital Outlay - Service	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9071	Water Supply System-Public Works-Public Works-Capital Outlay - Valves	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9072	Water Supply System-Public Works-Public Works-Capital Outlay - Mains	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9073	Water Supply System-Public Works-Public Works-Capital Outlay - Hydrants	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9074	Water Supply System-Public Works-Public Works-Capital Outlay - Contr Dug Ser	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9075	Water Supply System-Public Works-Public Works-Capital Outlay - 4 In + Service	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-6100-9076	Water Supply System-Public Works-Public Works-Capital Outlay - Renewal Service	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-9256-0000	Water Supply System-Public Works-Water Service Line Replacement-Revenue	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-061-9256-9000	Water Supply System-Public Works-Water Service Line Replacement-Capital Outlay	0.00%	0.00%	100.00%	0.00%	0.00%	100%	-	-	-	-	-	-
0042-070-1000-1000	Water Supply System-Public Services Administration-Administration-Administration	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-	-
0042-070-1000-1000-1100	Permanent Time Worked	3.00%	46.81%	31.74%	15.72%	2.73%	100%	40,582	1,218	18,997	12,882	6,379	1,106
0042-070-1000-1000-1721	Annual Sick Leave Payout	3.00%	46.81%	31.74%	15.72%	2.73%	100%	470	14	220	149	74	13
0042-070-1000-1000-1800	Equipment Allowance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	90	3	42	29	14	2
0042-070-1000-1000-2240	Telecommunications	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,000	30	468	317	157	27
0042-070-1000-1000-2410	Rent City Vehicles	3.00%	46.81%	31.74%	15.72%	2.73%	100%	300	9	140	95	47	8
0042-070-1000-1000-2500	Printing	3.00%	46.81%	31.74%	15.72%	2.73%	100%	300	9	140	95	47	8
0042-070-1000-1000-2700	Conference Training & Travel	3.00%	46.81%	31.74%	15.72%	2.73%	100%	5,500	165	2,575	1,746	865	150
0042-070-1000-1000-3100	Postage	3.00%	46.81%	31.74%	15.72%	2.73%	100%	50	2	23	16	8	1
0042-070-1000-1000-3400	Materials & Supplies	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,000	30	468	317	157	27
0042-070-1000-1000-4220	Life Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	105	3	49	33	17	3
0042-070-1000-1000-4230	Medical Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	7,217	217	3,378	2,291	1,135	197
0042-070-1000-1000-4234	Disability Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	248	7	116	79	39	7
0042-070-1000-1000-4237	Retiree Health Savings Account	3.00%	46.81%	31.74%	15.72%	2.73%	100%	208	6	97	66	33	6
0042-070-1000-1000-4238	Veba Funding	3.00%	46.81%	31.74%	15.72%	2.73%	100%	3,971	119	1,859	1,261	624	108
0042-070-1000-1000-4240	Workers Comp	3.00%	46.81%	31.74%	15.72%	2.73%	100%	115	3	54	37	18	3
0042-070-1000-1000-4250	Social Security-Employer	3.00%	46.81%	31.74%	15.72%	2.73%	100%	3,147	94	1,473	999	495	86
0042-070-1000-1000-4257	Excess Pension Refund	3.00%	46.81%	31.74%	15.72%	2.73%	100%	52,296	1,569	24,480	16,600	8,221	1,425
0042-070-1000-1000-4259	Retirement Contribution	3.00%	46.81%	31.74%	15.72%	2.73%	100%	9,484	285	4,440	3,010	1,491	259
0042-070-1000-1000-4260	Insurance Premiums	3.00%	46.81%	31.74%	15.72%	2.73%	100%	128,195	3,847	60,009	40,693	20,152	3,494
0042-070-1000-1000-4270	Dental Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	564	17	264	179	89	15
0042-070-1000-1000-4280	Optical Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	66	2	31	21	10	2
0042-070-1000-1000-4300	Dues & Licenses	3.00%	46.81%	31.74%	15.72%	2.73%	100%	583,500	1,755	27,384	18,569	9,196	1,595
0042-070-1000-1000-4310	Municipal Service Charges	3.00%	46.81%	31.74%	15.72%	2.73%	100%	440,391	12,104	188,831	128,047	63,413	10,995
0042-070-1000-1000-4420	Transfer To Other Funds	3.00%	46.81%	31.74%	15.72%	2.73%	100%	705,225	21,161	330,122	223,588	110,861	19,223
0042-070-1000-1000-4440	Unemployment Compensation	3.00%	46.81%	31.74%	15.72%	2.73%	100%	114	3	53	36	18	3
0042-070-1000-1001	Water Supply System-Public Services Administration-Administration-Service Area Over	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-	-
0042-070-1000-1001-1100	Permanent Time Worked	3.00%	46.81%	31.74%	15.72%	2.73%	100%	425,210	12,759	199,045	134,973	66,843	11,590
0042-070-1000-1001-1721	Annual Sick Leave Payout	3.00%	46.81%	31.74%	15.72%	2.73%	100%	2,924	88	1,369	928	460	80
0042-070-1000-1001-1741	Longevity Pay	3.00%	46.81%	31.74%	15.72%	2.73%	100%	585	18	274	186	92	16
0042-070-1000-1001-1751	Benefit Waiver Pay	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,800	54	843	571	283	49
0042-070-1000-1001-1800	Equipment Allowance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	816	24	382	259	128	22
0042-070-1000-1001-2100	Professional Services	3.00%	46.81%	31.74%	15.72%	2.73%	100%	5,000	150	2,341	1,587	786	136
0042-070-1000-1001-2240	Telecommunications	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,700	51	796	540	267	46
0042-070-1000-1001-2320	Equipment Maintenance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	250	8	117	79	39	7
0042-070-1000-1001-2420	Rent Outside Vehicles/Mileage	3.00%	46.81%	31.74%	15.72%	2.73%	100%	100	3	47	32	16	3
0042-070-1000-1001-2430	Contracted Services	3.00%	46.81%	31.74%	15.72%	2.73%	100%	4,000	120	1,872	1,270	629	109
0042-070-1000-1001-2500	Printing	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,000	30	468	317	157	27
0042-070-1000-1001-2600	Rent	3.00%	46.81%	31.74%	15.72%	2.73%	100%	250	8	117	79	39	7
0042-070-1000-1001-2700	Conference Training & Travel	3.00%	46.81%	31.74%	15.72%	2.73%	100%	2,000	60	936	635	314	55
0042-070-1000-1001-2702	Educational Reimbursement	3.00%	46.81%	31.74%	15.72%	2.73%	100%	5,000	150	2,341	1,587	786	136
0042-070-1000-1001-2850	Advertising	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,000	30	468	317	157	27
0042-070-1000-1001-2951	Employee Recognition	3.00%	46.81%	31.74%	15.72%	2.73%	100%	400	12	187	127	63	11
0042-070-1000-1001-3100	Postage	3.00%	46.81%	31.74%	15.72%	2.73%	100%	500	15	234	159	79	14
0042-070-1000-1001-3400	Materials & Supplies	3.00%	46.81%	31.74%	15.72%	2.73%	100%	7,500	225	3,511	2,381	1,179	204
0042-070-1000-1001-4220	Life Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,052	32	492	334	165	29
0042-070-1000-1001-4230	Medical Insurance	3.00%	46.81%	31.74%	15.72%	2.73%	100%	53,316	1,600	24,958	16,924	8,381	1,453

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

0042-070-1000-1001-4250 - Social Security-Employer	\$	31,088	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	933	14,553	9,868	4,887	847
0042-070-1000-1001-4259 - Retirement Contribution	\$	99,035	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	2,972	46,359	31,436	15,568	2,699
0042-070-1000-1001-4270 - Dental Insurance	\$	5,237	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	157	2,451	1,662	823	143
0042-070-1000-1001-4280 - Optical Insurance	\$	613	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	18	287	195	96	17
0042-070-1000-1001-4300 - Dues & Licenses	\$	1,000	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	30	468	317	157	27
0042-070-1000-1001-4420 - Transfer To Other Funds	\$	253,284	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	7,600	118,565	80,399	39,816	6,904
0042-070-1000-1001-4423 - Transfer To IT Fund	\$	65,257	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	1,958	30,547	20,714	10,268	1,779
0042-070-1000-1001-4440 - Unemployment Compensation	\$	1,052	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	32	492	334	165	29
0042-070-1000-1100 - Water Supply System-Public Services Administration-Administration-Fringe Benefits	\$	-	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	30,384	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	912	14,223	9,645	4,776	828
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	25,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	25,000	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Indirect	3.00%	46.81%	31.74%	15.72%	2.73%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	250	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	7	90	153	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	176,200	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	4,932	63,083	108,185	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	52,275	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	1,445	18,481	31,694	656	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	468	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	13	165	284	6	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	120	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	3	42	73	2	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	8,810	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	244	3,115	5,341	111	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	299	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	8	106	181	4	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	498	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	14	176	302	6	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	353	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	10	125	214	4	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	4,035	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	112	1,426	2,446	51	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	12,075	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	334	4,269	7,321	151	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	676	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	19	239	410	8	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	79	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	2	28	48	1	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	136	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	4	48	82	2	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Fixed Assets	2.76%	35.35%	60.63%	1.25%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	406,215	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	20,311	345,283	40,622	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	15,000	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	750	12,750	1,500	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	3,830	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	192	3,256	383	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	698	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	35	593	70	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,523	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	76	1,295	152	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	2,778	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	139	2,361	278	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	377,705	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	18,885	321,049	37,771	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	14,000	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	700	11,900	1,400	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	25	425	50	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	25	425	50	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	25	425	50	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	75	1,275	150	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	15,000	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	750	12,750	1,500	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	8,500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	425	7,225	850	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,550	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	78	1,318	155	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,500	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	75	1,275	150	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	10,000	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	500	8,500	1,000	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	200	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	10	170	20	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	939	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	47	798	94	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	60,200	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	3,010	51,170	6,020	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	2,042	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	102	1,736	204	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,826	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	91	1,552	183	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	42,506	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	2,125	36,130	4,251	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	313,968	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	15,698	266,873	31,397	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	6,333	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	317	5,383	633	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	31,590	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	1,580	26,852	3,159	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	94,881	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	4,744	80,649	9,488	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	4,617	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	231	3,924	462	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	540	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	27	459	54	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	5,025	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	251	4,271	503	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	152,078	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	7,604	129,266	15,208	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	1,145	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	57	973	115	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%	0.00%	100%	-	-	-	-	-
0042-070-1000-1100-4239 - Retiree Medical Insurance	\$	-	Management Estimate	5.00%	85.00%	10.00%	0.00%							

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

0042-074-4300-7043-2210 - Natural Gas	\$	40,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	40,000	-	-	-	-	-	-	-
0042-074-4300-7043-2211 - Other Fuels	\$	7,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	7,000	-	-	-	-	-	-	-
0042-074-4300-7043-2220 - Electricity	\$	500,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	500,000	-	-	-	-	-	-	-
0042-074-4300-7043-2231 - Storm Water Runoff	\$	8,311	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	8,311	-	-	-	-	-	-	-
0042-074-4300-7043-2310 - Building Maintenance	\$	30,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	30,000	-	-	-	-	-	-	-
0042-074-4300-7043-2320 - Equipment Maintenance	\$	50,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	50,000	-	-	-	-	-	-	-
0042-074-4300-7043-2330 - Radio Maintenance	\$	151	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	151	-	-	-	-	-	-	-
0042-074-4300-7043-2331 - Radio System Service Charge	\$	16,094	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	16,094	-	-	-	-	-	-	-
0042-074-4300-7043-2420 - Rent Outside Vehicles/Mileage	\$	3,633	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	3,633	-	-	-	-	-	-	-
0042-074-4300-7043-2430 - Contracted Services	\$	65,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	65,000	-	-	-	-	-	-	-
0042-074-4300-7043-2435 - Tipping Fees	\$	24,487	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	24,487	-	-	-	-	-	-	-
0042-074-4300-7043-2660 - Software Maintenance	\$	31,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	31,000	-	-	-	-	-	-	-
0042-074-4300-7043-2700 - Conference Training & Travel	\$	17,500	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	17,500	-	-	-	-	-	-	-
0042-074-4300-7043-2702 - Educational Reimbursement	\$	2,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	2,000	-	-	-	-	-	-	-
0042-074-4300-7043-3200 - Chemicals	\$	1,088,190	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	1,088,190	-	-	-	-	-	-	-
0042-074-4300-7043-3300 - Uniforms & Accessories	\$	13,200	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	13,200	-	-	-	-	-	-	-
0042-074-4300-7043-3400 - Materials & Supplies	\$	191,083	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	191,083	-	-	-	-	-	-	-
0042-074-4300-7043-3405 - Safety Related supplies	\$	4,500	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	4,500	-	-	-	-	-	-	-
0042-074-4300-7043-3440 - Property Plant & Equipment < \$5,000	\$	33,800	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	33,800	-	-	-	-	-	-	-
0042-074-4300-7043-4100 - Depreciation	\$	-	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	-	-	-	-	-	-	-	-
0042-074-4300-7043-4220 - Life Insurance	\$	909	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	909	-	-	-	-	-	-	-
0042-074-4300-7043-4230 - Medical Insurance	\$	219,218	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	219,218	-	-	-	-	-	-	-
0042-074-4300-7043-4237 - Retiree Health Savings Account	\$	6,758	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	6,758	-	-	-	-	-	-	-
0042-074-4300-7043-4238 - Veba Funding	\$	140,733	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	140,733	-	-	-	-	-	-	-
0042-074-4300-7043-4240 - Workers Comp	\$	18,379	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	18,379	-	-	-	-	-	-	-
0042-074-4300-7043-4250 - Social Security-Employer	\$	81,297	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	81,297	-	-	-	-	-	-	-
0042-074-4300-7043-4259 - Retirement Contribution	\$	246,923	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	246,923	-	-	-	-	-	-	-
0042-074-4300-7043-4270 - Dental Insurance	\$	17,175	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	17,175	-	-	-	-	-	-	-
0042-074-4300-7043-4280 - Optical Insurance	\$	2,002	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	2,002	-	-	-	-	-	-	-
0042-074-4300-7043-4423 - Transfer To IT Fund	\$	69,857	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	69,857	-	-	-	-	-	-	-
0042-074-4300-7043-4440 - Unemployment Compensation	\$	3,845	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	3,845	-	-	-	-	-	-	-
0042-074-4300-7044 - Water Supply System-Utilities-Water Treatment-WTP Operation-Process Lab	\$	-	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	-	-	-	-	-	-	-	-
0042-074-4300-7044-2320 - Equipment Maintenance	\$	4,900	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	4,900	-	-	-	-	-	-	-
0042-074-4300-7044-3200 - Chemicals	\$	29,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	29,000	-	-	-	-	-	-	-
0042-074-4300-7044-3400 - Materials & Supplies	\$	12,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	12,000	-	-	-	-	-	-	-
0042-074-4300-7048 - Water Supply System-Utilities-Water Treatment-WTP Operation-City Services	\$	-	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	-	-	-	-	-	-	-	-
0042-074-4300-7053 - Water Supply System-Utilities-Water Treatment-WTP Operation-Lab	\$	-	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	-	-	-	-	-	-	-	-
0042-074-4300-7053-1100 - Permanent Time Worked	\$	113,137	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	16,971	-	-	-	96,166	-	-	-	-	-	-	-
0042-074-4300-7053-1200 - Temporary Pay	\$	7,500	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	1,125	-	-	-	6,375	-	-	-	-	-	-	-
0042-074-4300-7053-1401 - Overtime Paid-Permanent	\$	2,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	300	-	-	-	1,700	-	-	-	-	-	-	-
0042-074-4300-7053-1741 - Longevity Pay	\$	336	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	50	-	-	-	286	-	-	-	-	-	-	-
0042-074-4300-7053-1751 - Benefit Waiver Pay	\$	1,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	150	-	-	-	850	-	-	-	-	-	-	-
0042-074-4300-7053-2100 - Professional Services	\$	60,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	9,000	-	-	-	51,000	-	-	-	-	-	-	-
0042-074-4300-7053-2320 - Equipment Maintenance	\$	5,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	750	-	-	-	4,250	-	-	-	-	-	-	-
0042-074-4300-7053-2420 - Rent Outside Vehicles/Mileage	\$	100	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	15	-	-	-	85	-	-	-	-	-	-	-
0042-074-4300-7053-2700 - Conference Training & Travel	\$	3,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	450	-	-	-	2,550	-	-	-	-	-	-	-
0042-074-4300-7053-3100 - Postage	\$	1,900	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	285	-	-	-	1,615	-	-	-	-	-	-	-
0042-074-4300-7053-3200 - Chemicals	\$	7,000	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	1,050	-	-	-	5,950	-	-	-	-	-	-	-
0042-074-4300-7053-3400 - Materials & Supplies	\$	23,090	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	3,464	-	-	-	19,627	-	-	-	-	-	-	-
0042-074-4300-7053-3405 - Safety Related supplies	\$	500	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	75	-	-	-	425	-	-	-	-	-	-	-
0042-074-4300-7053-4220 - Life Insurance	\$	85	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	13	-	-	-	72	-	-	-	-	-	-	-
0042-074-4300-7053-4230 - Medical Insurance	\$	14,292	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	2,144	-	-	-	12,148	-	-	-	-	-	-	-
0042-074-4300-7053-4237 - Retiree Health Savings Account	\$	1,129	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	169	-	-	-	960	-	-	-	-	-	-	-
0042-074-4300-7053-4238 - Veba Funding	\$	7,942	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	1,191	-	-	-	6,751	-	-	-	-	-	-	-
0042-074-4300-7053-4240 - Workers Comp	\$	317	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	48	-	-	-	269	-	-	-	-	-	-	-
0042-074-4300-7053-4250 - Social Security-Employer	\$	8,661	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	1,299	-	-	-	7,362	-	-	-	-	-	-	-
0042-074-4300-7053-4259 - Retirement Contribution	\$	26,213	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	3,932	-	-	-	22,281	-	-	-	-	-	-	-
0042-074-4300-7053-4270 - Dental Insurance	\$	1,116	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	167	-	-	-	949	-	-	-	-	-	-	-
0042-074-4300-7053-4280 - Optical Insurance	\$	131	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	20	-	-	-	111	-	-	-	-	-	-	-
0042-074-4300-7053-4300 - Dues & Licenses	\$	1,900	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	285	-	-	-	1,615	-	-	-	-	-	-	-
0042-074-4300-7053-4440 - Unemployment Compensation	\$	422	Management Estimate	15.00%	85.00%	0.00%	0.00%	0.00%	100%	63	-	-	-	359	-	-	-	-	-	-	-
0042-074-4300-7055 - Water Supply System-Utilities-Water Treatment-WTP Operation-Stolids	\$	-	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	-	-	-	-	-	-	-	-
0042-074-4300-7055-1100 - Permanent Time Worked	\$	48,950	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	48,950	-	-	-	-	-	-	-
0042-074-4300-7055-1401 - Overtime Paid-Permanent	\$	2,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	2,000	-	-	-	-	-	-	-
0042-074-4300-7055-1741 - Longevity Pay	\$	336	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	336	-	-	-	-	-	-	-
0042-074-4300-7055-2320 - Equipment Maintenance	\$	2,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	2,000	-	-	-	-	-	-	-
0042-074-4300-7055-2430 - Contracted Services	\$	245,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	245,000	-	-	-	-	-	-	-
0042-074-4300-7055-3400 - Materials & Supplies	\$	10,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100%	-	-	-	-	10,000	-	-	-				

## Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

0042-074-4300-7060-2100 - Professional Services	\$	140,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	35,000	-	105,000	-	-
0042-074-4300-7060-2210 - Natural Gas	\$	80,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	20,000	-	60,000	-	-
0042-074-4300-7060-2220 - Electricity	\$	500,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	125,000	-	375,000	-	-
0042-074-4300-7060-2231 - Storm Water Runoff	\$	1,200	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	300	-	900	-	-
0042-074-4300-7060-2320 - Equipment Maintenance	\$	15,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	3,750	-	11,250	-	-
0042-074-4300-7060-2421 - Fleet Maintenance & Repair	\$	6,140	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	1,535	-	4,605	-	-
0042-074-4300-7060-2423 - Fleet Depreciation	\$	3,683	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	921	-	2,762	-	-
0042-074-4300-7060-2424 - Fleet Management	\$	1,384	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	346	-	1,038	-	-
0042-074-4300-7060-3400 - Materials & Supplies	\$	30,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	7,500	-	22,500	-	-
0042-074-4300-7060-4220 - Life Insurance	\$	33	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	8	-	25	-	-
0042-074-4300-7060-4230 - Medical Insurance	\$	7,799	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	1,950	-	5,849	-	-
0042-074-4300-7060-4237 - Retiree Health Savings Account	\$	336	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	84	-	252	-	-
0042-074-4300-7060-4238 - Veba Funding	\$	3,176	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	794	-	2,382	-	-
0042-074-4300-7060-4240 - Workers Comp	\$	580	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	145	-	435	-	-
0042-074-4300-7060-4250 - Social Security-Employer	\$	2,529	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	632	-	1,897	-	-
0042-074-4300-7060-4259 - Retirement Contribution	\$	7,665	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	1,916	-	5,749	-	-
0042-074-4300-7060-4270 - Dental Insurance	\$	616	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	154	-	462	-	-
0042-074-4300-7060-4280 - Optical Insurance	\$	77	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	19	-	58	-	-
0042-074-4300-7060-4440 - Unemployment Compensation	\$	132	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	33	-	99	-	-
0042-074-4300-7060-5130 - Equipment	\$	50,000	Management Estimate	25.00%	0.00%	75.00%	0.00%	0.00%	100%	12,500	-	37,500	-	-
0042-078-8000-1000 - Water Supply System-Customer Service-Customer Service-Administration	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-078-8000-1000-1100 - Permanent Time Worked	\$	163,900	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	163,900
0042-078-8000-1000-1721 - Annual Sick Leave Payout	\$	1,098	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	1,098
0042-078-8000-1000-1741 - Longevity Pay	\$	720	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	720
0042-078-8000-1000-1800 - Equipment Allowance	\$	390	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	390
0042-078-8000-1000-2240 - Telecommunications	\$	1,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	1,500
0042-078-8000-1000-2320 - Equipment Maintenance	\$	250	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	250
0042-078-8000-1000-2430 - Contracted Services	\$	3,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	3,500
0042-078-8000-1000-2500 - Printing	\$	3,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	3,500
0042-078-8000-1000-2700 - Conference Training & Travel	\$	1,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	1,000
0042-078-8000-1000-2950 - Governmental Services	\$	100	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	100
0042-078-8000-1000-2951 - Employee Recognition	\$	100	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	100
0042-078-8000-1000-3100 - Postage	\$	2,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	2,500
0042-078-8000-1000-3400 - Materials & Supplies	\$	6,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	6,000
0042-078-8000-1000-4220 - Life Insurance	\$	231	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	231
0042-078-8000-1000-4230 - Medical Insurance	\$	27,848	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	27,848
0042-078-8000-1000-4234 - Disability Insurance	\$	398	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	398
0042-078-8000-1000-4238 - Veba Funding	\$	30,179	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	30,179
0042-078-8000-1000-4240 - Workers Comp	\$	466	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	466
0042-078-8000-1000-4250 - Social Security-Employer	\$	12,663	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	12,663
0042-078-8000-1000-4259 - Retirement Contribution	\$	38,281	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	38,281
0042-078-8000-1000-4270 - Dental Insurance	\$	2,140	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	2,140
0042-078-8000-1000-4280 - Optical Insurance	\$	251	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	251
0042-078-8000-1000-4423 - Transfer To IT Fund	\$	43,875	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	43,875
0042-078-8000-1000-4440 - Unemployment Compensation	\$	430	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	430
0042-078-8000-1000-4520 - Contingency	\$	1,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	1,500
0042-078-8000-1100 - Water Supply System-Customer Service-Customer Service-Fringe Benefits	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-078-8000-1100-4260 - Insurance Premiums	\$	2,300	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	2,300
0042-078-8000-7010 - Water Supply System-Customer Service-Customer Service-Customer Service	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-078-8000-7010-4239 - Retiree Medical Insurance	\$	111,408	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	111,408
0042-078-8000-7032 - Water Supply System-Customer Service-Customer Service-Billing	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-078-8000-7032-1100 - Permanent Time Worked	\$	161,917	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	161,917
0042-078-8000-7032-1741 - Longevity Pay	\$	1,470	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	1,470
0042-078-8000-7032-2240 - Telecommunications	\$	5,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	5,000
0042-078-8000-7032-2331 - Radio System Service Charge	\$	499	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	499
0042-078-8000-7032-2500 - Printing	\$	25,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	25,000
0042-078-8000-7032-2700 - Conference Training & Travel	\$	2,500	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	2,500
0042-078-8000-7032-2951 - Employee Recognition	\$	150	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	150
0042-078-8000-7032-3100 - Postage	\$	60,000	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	60,000
0042-078-8000-7032-3400 - Materials & Supplies	\$	150	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	150
0042-078-8000-7032-4220 - Life Insurance	\$	166	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	166
0042-078-8000-7032-4230 - Medical Insurance	\$	41,840	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	41,840
0042-078-8000-7032-4237 - Retiree Health Savings Account	\$	830	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	830
0042-078-8000-7032-4238 - Veba Funding	\$	30,974	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	30,974
0042-078-8000-7032-4240 - Workers Comp	\$	457	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	457
0042-078-8000-7032-4250 - Social Security-Employer	\$	12,408	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	12,408
0042-078-8000-7032-4259 - Retirement Contribution	\$	-	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	-
0042-078-8000-7032-4270 - Dental Insurance	\$	3,322	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	3,322
0042-078-8000-7032-4280 - Optical Insurance	\$	389	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	389
0042-078-8000-7032-4423 - Transfer To IT Fund	\$	240,730	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	240,730
0042-078-8000-7032-4440 - Unemployment Compensation	\$	667	Meter/Services	0.00%	0.00%	0.00%	100.00%	0.00%	100%	-	-	-	-	667
OPEB	\$	532,295	Estimate	2.36%	48.31%	29.58%	15.47%	4.28%	100%	12,561	257,148	157,436	82,362	22,788
GASB	\$	1,700,000	Estimate	2.36%	48.31%	29.58%	15.47%	4.28%	100%	40,118	821,257	502,806	263,042	72,777
<b>Debt Service</b>	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
<b>DWRF 2004A, 2004 (7146-01)/2.125%</b>	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$	30,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	840	10,741	18,420	-	-
Interest	\$	3,888	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	109	1,392	2,387	-	-
<b>Series 2008-A</b>	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$	1,585,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	44,369	567,458	973,173	-	-
Interest	\$	311,100	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	8,709	111,379	191,012	-	-
<b>DWRF 2009 (7319-01)</b>	\$	-	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$	215,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	6,018	76,974	132,008	-	-
Interest	\$	80,625	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,257	28,865	49,503	-	-

Schedule 2. Water System Operating & Debt Service Expense Allocations to Functions

DWRF 2011 (7325-01)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$ 30,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	840	10,741	18,420	-	-
Interest	\$ 9,957	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	279	3,565	6,113	-	-
DWRF 2012 (7362-01)-FINAL DEBT	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$ 375,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	10,497	134,257	230,246	-	-
Interest	\$ 181,568	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	5,083	65,005	111,481	-	-
DWRF 2012 (7333-01)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$ 220,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	6,158	78,764	135,078	-	-
Interest	\$ 90,765	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,541	32,496	55,729	-	-
Series 2012 (Refinance of 2,W,X)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$ 670,000	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	18,755	239,872	411,373	-	-
Interest	\$ 91,827	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,571	32,876	56,381	-	-
DWRF FY 2014 (7375-01)	\$ -	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	-	-	-	-	-
Principal	\$ 81,360	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	2,278	29,128	49,954	-	-
Interest	\$ 128,484	Fixed Assets (Excluding Meters)	2.80%	35.80%	61.40%	0.00%	0.00%	100%	3,597	46,000	78,888	-	-
Projects Funded with Cash	\$ -	5 Year CIP Projects	15.39%	40.62%	43.99%	0.00%	0.00%	100%	-	-	-	-	-
	\$ 10,172,250	5 Year CIP Projects	15.39%	40.62%	43.99%	0.00%	0.00%	100%	1,565,514	4,132,252	4,474,484	-	-
<b>TOTAL EXPENDITURES</b>	<b>\$ 32,727,825</b>								<b>\$ 2,234,065</b>	<b>\$ 14,238,843</b>	<b>\$ 12,851,499</b>	<b>\$ 2,900,490</b>	<b>\$ 502,928</b>
% Allocation									6.83%	43.51%	39.27%	8.86%	1.54%
Expenses Excluded From Indirect Allocation													
Debt Service	\$ 4,104,574								\$ 114,899	\$ 1,469,511	\$ 2,520,164	\$ -	\$ -
Cash Funded Capital	\$ 10,172,250								1,565,514	4,132,252	4,474,484	-	-
Net Expenses for Indirect Allocation	\$ 2,232,295								478,940	7,471,570	5,066,513	2,509,090	435,062
% of Expenditures									(Basis of Indirect Allocations ->) 3.00%	46.81%	31.74%	15.72%	2.73%

Schedule 3. Allocation of Other Water Revenues

Water System FY 2018 Allocation of Other Revenues

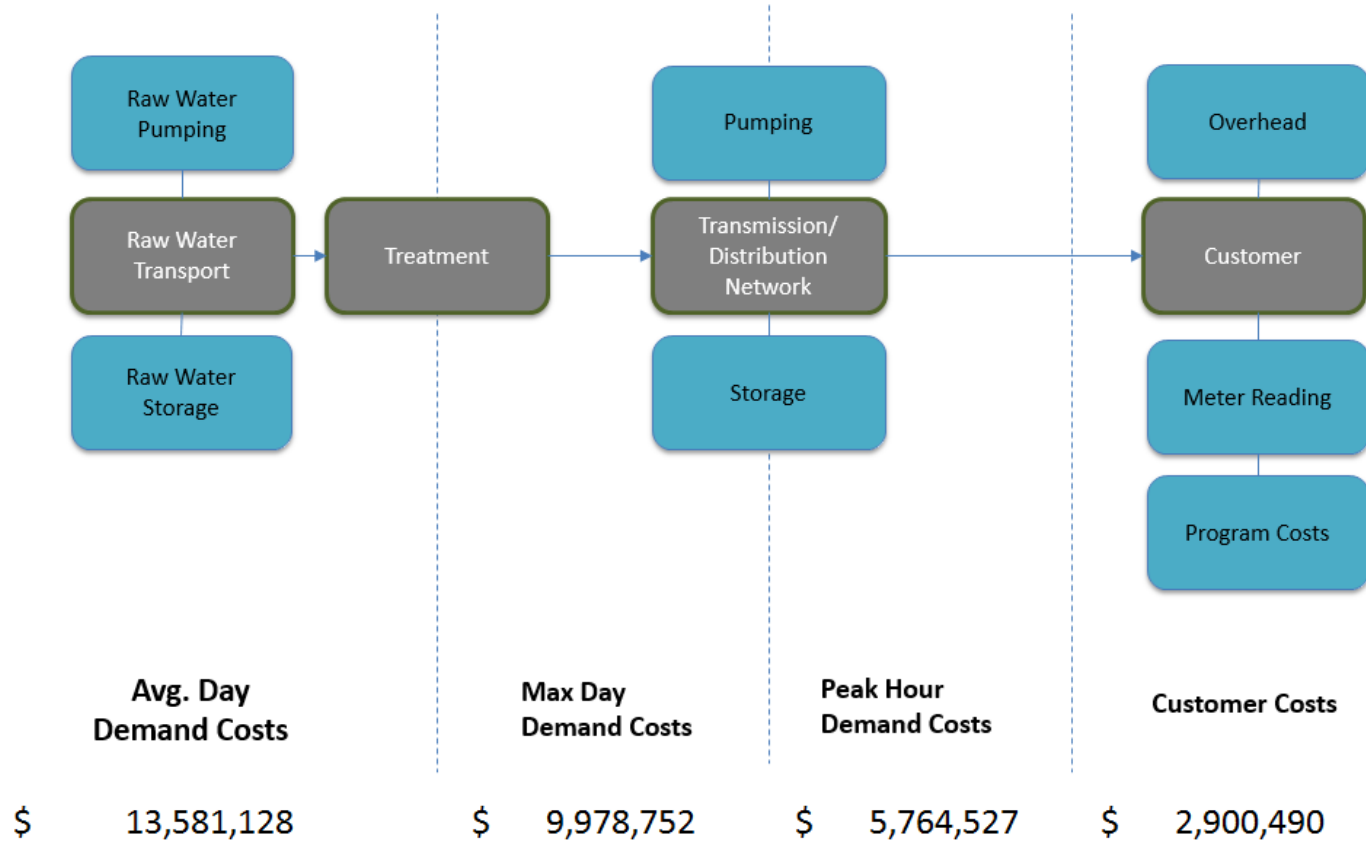
Type	Budget	Allocation Factor	Residential % Allocation	Multifamily % Allocation	Non-Residential % Allocation	Water Only % Allocation	Total % Allocation	Residential \$ Allocation	Multifamily \$ Allocation	Non-Residential \$ Allocation	Water Only \$ Allocation
								<b>3,376,046</b>	<b>1,606,486</b>	<b>2,474,543</b>	<b>1,255,306</b>
Forfeited Discounts	230,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	178,670	17,636	29,305	4,389
Merch & Jobbing-Field	174,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	135,168	13,342	22,170	3,320
Site Plan Review	75,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	58,262	5,751	9,556	1,431
Merch & Jobbing-Cust Service	55,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	42,725	4,217	7,008	1,050
Tap Fees	70,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	54,378	5,368	8,919	1,336
Merch & Jobbing-Field	38,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	29,519	2,914	4,842	725
Other Rentals	17,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	13,206	1,304	2,166	324
Preliminary Plan Review	5,500	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	4,273	422	701	105
Merch & Jobbing-Water Treat	1,000	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	777	77	127	19
Miscellaneous	-	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	-	-	-	-
NSF Ck Fee	1,200	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	932	92	153	23
Interest Income	242,324	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	188,244	18,581	30,875	4,624
Interest Income - Restricted	27,905	Total Customers	77.68%	7.67%	12.74%	1.91%	100.0%	21,677	2,140	3,555	532
Transfers in	1,440,905	Meter Equivalentents	39.46%	29.94%	26.73%	3.87%	100.0%	568,576	431,418	385,115	55,796
SDFs	1,275,000	Meter Equivalentents	39.46%	29.94%	26.73%	3.87%	100.0%	503,110	381,745	340,773	49,372
Resale revenue	2,379,539	Rate Revenue Req.	31.16%	14.26%	32.20%	22.38%	100.0%	741,452	339,317	766,261	532,510
Use of Reserves	2,680,008	Rate Revenue Req.	31.16%	14.26%	32.20%	22.38%	100.0%	835,076	382,163	863,018	599,751
<b>Total Other Revenues</b>	<b>\$ 8,712,381</b>		<b>31.16%</b>	<b>14.26%</b>	<b>32.20%</b>	<b>22.38%</b>		<b>\$ 3,376,046</b>	<b>\$ 1,606,486</b>	<b>\$ 2,474,543</b>	<b>\$ 1,255,306</b>

## Water Functional Cost Allocations

## Schedule 4

	TY Costs	Base Capacity - Avg Day (per CCF)	Extra Capacity - Max Day (per CCF)	Extra Capacity - Peak Hour (per CCF)	Fire Protection (per CCF)	Customer - Meters/Services (per Bill)
<b>Retail</b>						
Operating	\$ 18,425,290					
W/ Transmisson		\$ 1.17	\$ 507.76	\$ 70.01	\$ 0.75	\$ 8.51
Wo/ Transmisson		\$ 0.99	\$ 422.37	\$ 26.75	\$ 0.75	\$ 8.51
Debt Service	\$ 4,104,574					
W/ Transmisson		\$ 0.28	\$ 122.34	\$ 30.12	\$ -	\$ -
Wo/ Transmisson		\$ 0.20	\$ 85.60	\$ 11.51	\$ -	\$ -
Rate Funded Capital	\$ 10,172,250					
W/ Transmisson		\$ 0.86	\$ 282.39	\$ 53.48	\$ -	\$ -
Wo/ Transmisson		\$ 0.73	\$ 217.15	\$ 20.43	\$ -	\$ -
<b>Total</b>	<b>\$ 32,702,114</b>	<b>\$ 2.31</b>	<b>\$ 912.50</b>	<b>\$ 153.61</b>	<b>\$ 0.75</b>	<b>\$ 8.51</b>

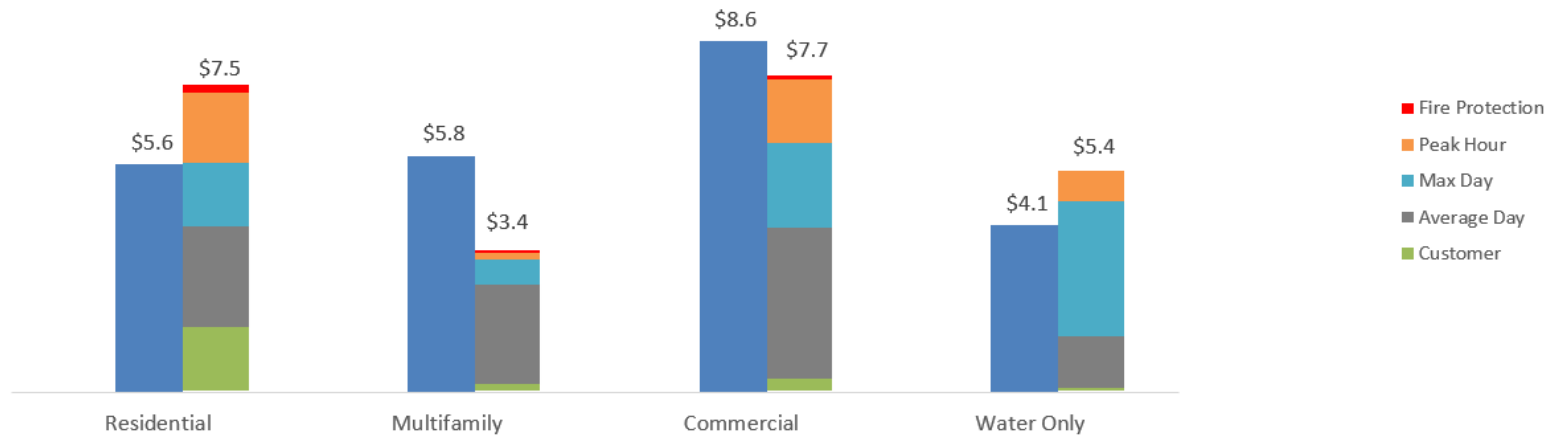
Schedule 5. Water Functional Allocation Summary





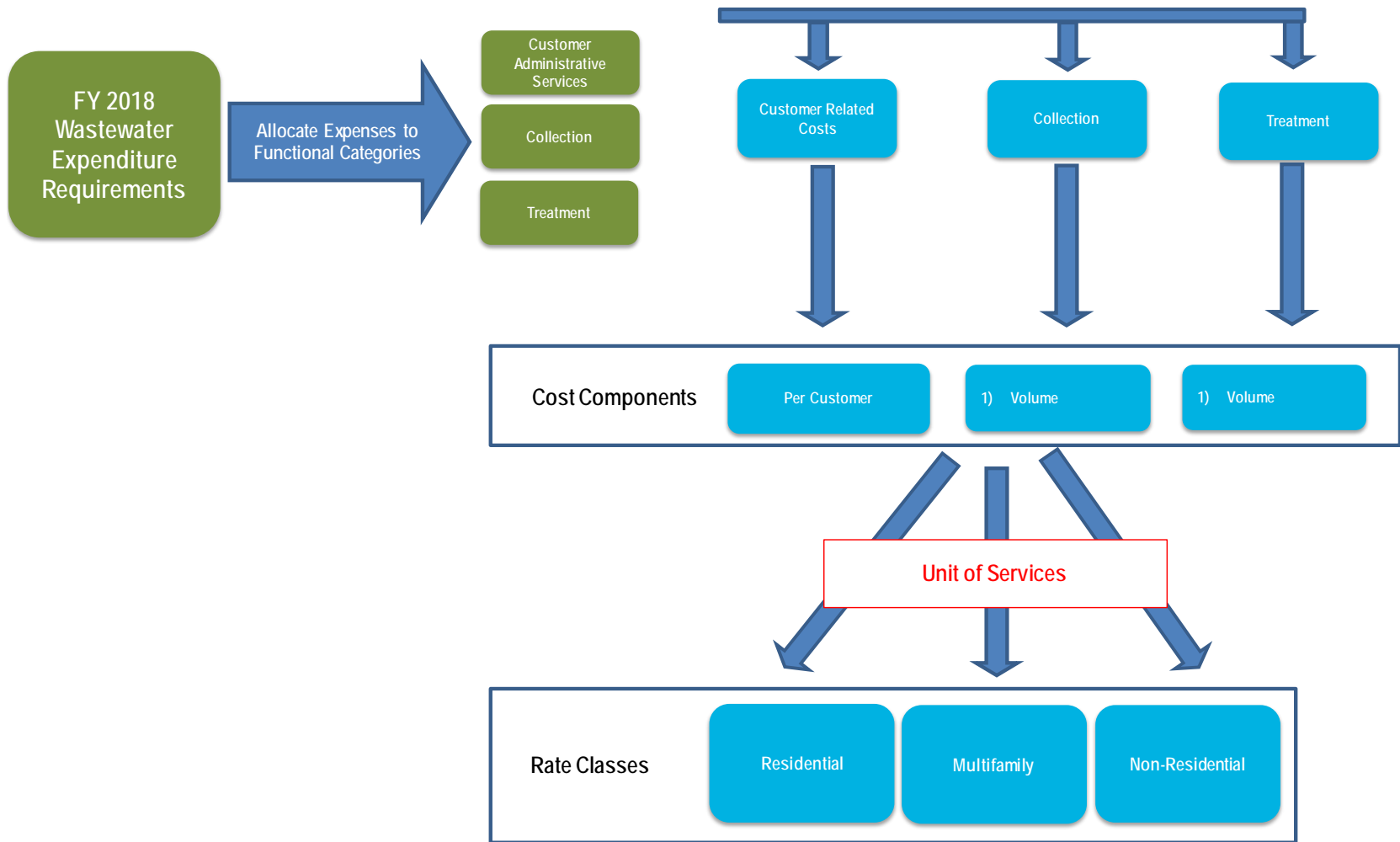
Schedule 6. Water Revenue Requirement Allocations

Revenue Requirements	Total	Residential	Multifamily	Non-Residential	Water Only
Operations and Maintenance	\$ 18,425,290	\$ 6,721,929	\$ 2,723,441	\$ 5,439,970	\$ 3,539,950
Plus: Debt Service	\$ 4,104,574	\$ 1,223,666	\$ 601,186	\$ 1,364,018	\$ 915,704
Plus: Rate Funded Capital	\$ 10,172,250	\$ 2,905,524	\$ 1,702,739	\$ 3,395,745	\$ 2,168,242
<b>Total Revenue Requirements</b>	<b>\$ 32,702,114</b>	<b>\$ 10,851,118</b>	<b>\$ 5,027,367</b>	<b>\$ 10,199,733</b>	<b>\$ 6,623,896</b>
Less: Other Revenue	\$ 8,712,457	\$ 3,376,046	\$ 1,606,486	\$ 2,474,543	\$ 1,255,306
<b>Rate Requirement</b>	<b>\$ 23,989,657</b>	<b>\$ 7,475,072</b>	<b>\$ 3,420,881</b>	<b>\$ 7,725,190</b>	<b>\$ 5,368,589</b>
Annual Water Sales (CCF)	5,880,085	1,549,743	1,547,950	2,107,118	675,275
<b>Current Rate Rev / CCF</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>	<b>\$ 0.00</b>
<b>Rate Rev. Req./ (CCF)</b>	<b>\$ 4.08</b>	<b>\$ 4.82</b>	<b>\$ 2.21</b>	<b>\$ 3.67</b>	<b>\$ 7.95</b>



## APPENDIX B2: COST OF SERVICE ALLOCATION SUPPORTING SCHEDULES - SEWER

- Schedule 1 Cost Allocation Framework
- Schedule 2 Sewer System Operating & Debt Service Expense Allocation to Functions
- Schedule 3 Allocation of Other Sewer Revenues
- Schedule 4 Sewer Revenue Requirement Allocations



Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-046-8500-1000-1100 - Permanent Time Worked	\$ 62,601	Indirect	4.64%	25.63%	69.73%	100.00%	2,907	16,045	43,649
0043-046-8500-1000-1200 - Temporary Pay	\$ 29,190	Indirect	4.64%	25.63%	69.73%	100.00%	1,355	7,481	20,353
0043-046-8500-1000-1741 - Longevity Pay	\$ 90	Indirect	4.64%	25.63%	69.73%	100.00%	4	23	63
0043-046-8500-1000-1800 - Equipment Allowance	\$ 234	Indirect	4.64%	25.63%	69.73%	100.00%	11	60	163
0043-046-8500-1000-2100 - Professional Services	\$ 31,000	Indirect	4.64%	25.63%	69.73%	100.00%	1,440	7,945	21,615
0043-046-8500-1000-2240 - Telecommunications	\$ 800	Indirect	4.64%	25.63%	69.73%	100.00%	37	205	558
0043-046-8500-1000-2410 - Rent City Vehicles	\$ 150	Indirect	4.64%	25.63%	69.73%	100.00%	7	38	105
0043-046-8500-1000-2420 - Rent Outside Vehicles/Mile	\$ 50	Indirect	4.64%	25.63%	69.73%	100.00%	2	13	35
0043-046-8500-1000-2430 - Contracted Services	\$ 9,000	Indirect	4.64%	25.63%	69.73%	100.00%	418	2,307	6,275
0043-046-8500-1000-2500 - Printing	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-1000-2660 - Software Maintenance	\$ 400	Indirect	4.64%	25.63%	69.73%	100.00%	19	103	279
0043-046-8500-1000-2700 - Conference Training & Trav	\$ 2,960	Indirect	4.64%	25.63%	69.73%	100.00%	137	759	2,064
0043-046-8500-1000-2951 - Employee Recognition	\$ 200	Indirect	4.64%	25.63%	69.73%	100.00%	9	51	139
0043-046-8500-1000-3100 - Postage	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-1000-3400 - Materials & Supplies	\$ 1,000	Indirect	4.64%	25.63%	69.73%	100.00%	46	256	697
0043-046-8500-1000-3440 - Property Plant & Equipmen	\$ 200	Indirect	4.64%	25.63%	69.73%	100.00%	9	51	139
0043-046-8500-1000-4220 - Life Insurance	\$ 150	Indirect	4.64%	25.63%	69.73%	100.00%	7	38	105
0043-046-8500-1000-4230 - Medical Insurance	\$ 5,823	Indirect	4.64%	25.63%	69.73%	100.00%	270	1,492	4,060
0043-046-8500-1000-4234 - Disability Insurance	\$ 298	Indirect	4.64%	25.63%	69.73%	100.00%	14	76	208
0043-046-8500-1000-4237 - Retiree Health Savings Accc	\$ 249	Indirect	4.64%	25.63%	69.73%	100.00%	12	64	174
0043-046-8500-1000-4238 - Veba Funding	\$ 6,353	Indirect	4.64%	25.63%	69.73%	100.00%	295	1,628	4,430
0043-046-8500-1000-4239 - Retiree Medical Insurance	\$ 5,064	Indirect	4.64%	25.63%	69.73%	100.00%	235	1,298	3,531
0043-046-8500-1000-4240 - Workers Comp	\$ 605	Indirect	4.64%	25.63%	69.73%	100.00%	28	155	422
0043-046-8500-1000-4250 - Social Security-Employer	\$ 4,808	Indirect	4.64%	25.63%	69.73%	100.00%	223	1,232	3,352
0043-046-8500-1000-4259 - Retirement Contribution	\$ 14,481	Indirect	4.64%	25.63%	69.73%	100.00%	672	3,712	10,097
0043-046-8500-1000-4270 - Dental Insurance	\$ 789	Indirect	4.64%	25.63%	69.73%	100.00%	37	202	550
0043-046-8500-1000-4280 - Optical Insurance	\$ 93	Indirect	4.64%	25.63%	69.73%	100.00%	4	24	65
0043-046-8500-1000-4300 - Dues & Licenses	\$ 112	Indirect	4.64%	25.63%	69.73%	100.00%	5	29	78
0043-046-8500-1000-4423 - Transfer To IT Fund	\$ 104,328	Indirect	4.64%	25.63%	69.73%	100.00%	4,845	26,740	72,744
0043-046-8500-1000-4440 - Unemployment Compensat	\$ 159	Indirect	4.64%	25.63%	69.73%	100.00%	7	41	111
0043-046-8500-3360-1100 - Permanent Time Worked	\$ 14,669	Indirect	4.64%	25.63%	69.73%	100.00%	681	3,760	10,228
0043-046-8500-3360-1800 - Equipment Allowance	\$ 156	Indirect	4.64%	25.63%	69.73%	100.00%	7	40	109
0043-046-8500-3360-4220 - Life Insurance	\$ 40	Indirect	4.64%	25.63%	69.73%	100.00%	2	10	28
0043-046-8500-3360-4230 - Medical Insurance	\$ 2,228	Indirect	4.64%	25.63%	69.73%	100.00%	103	571	1,553
0043-046-8500-3360-4234 - Disability Insurance	\$ 100	Indirect	4.64%	25.63%	69.73%	100.00%	5	26	70
0043-046-8500-3360-4238 - Veba Funding	\$ 3,176	Indirect	4.64%	25.63%	69.73%	100.00%	147	814	2,214
0043-046-8500-3360-4240 - Workers Comp	\$ 132	Indirect	4.64%	25.63%	69.73%	100.00%	6	34	92
0043-046-8500-3360-4250 - Social Security-Employer	\$ 1,132	Indirect	4.64%	25.63%	69.73%	100.00%	53	290	789
0043-046-8500-3360-4259 - Retirement Contribution	\$ 3,389	Indirect	4.64%	25.63%	69.73%	100.00%	157	869	2,363
0043-046-8500-3360-4270 - Dental Insurance	\$ 169	Indirect	4.64%	25.63%	69.73%	100.00%	8	43	118
0043-046-8500-3360-4280 - Optical Insurance	\$ 20	Indirect	4.64%	25.63%	69.73%	100.00%	1	5	14
0043-046-8500-3360-4440 - Unemployment Compensat	\$ 45	Indirect	4.64%	25.63%	69.73%	100.00%	2	12	31
0043-046-8500-7019-1100 - Permanent Time Worked	\$ 16,661	Customer	100.00%	0.00%	0.00%	100.00%	16,661	-	-
0043-046-8500-7019-1601 - Severance Pay	\$ 17,000	Customer	100.00%	0.00%	0.00%	100.00%	17,000	-	-
0043-046-8500-7019-1800 - Equipment Allowance	\$ 156	Customer	100.00%	0.00%	0.00%	100.00%	156	-	-
0043-046-8500-7019-4220 - Life Insurance	\$ 40	Customer	100.00%	0.00%	0.00%	100.00%	40	-	-
0043-046-8500-7019-4230 - Medical Insurance	\$ 2,227	Customer	100.00%	0.00%	0.00%	100.00%	2,227	-	-
0043-046-8500-7019-4234 - Disability Insurance	\$ 100	Customer	100.00%	0.00%	0.00%	100.00%	100	-	-
0043-046-8500-7019-4238 - Veba Funding	\$ 3,176	Customer	100.00%	0.00%	0.00%	100.00%	3,176	-	-

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-046-8500-7019-4240 - Workers Comp	\$ 229	Customer	100.00%	0.00%	0.00%	100.00%	229	-	-
0043-046-8500-7019-4250 - Social Security-Employer	\$ 1,287	Customer	100.00%	0.00%	0.00%	100.00%	1,287	-	-
0043-046-8500-7019-4259 - Retirement Contribution	\$ 3,849	Customer	100.00%	0.00%	0.00%	100.00%	3,849	-	-
0043-046-8500-7019-4270 - Dental Insurance	\$ 169	Customer	100.00%	0.00%	0.00%	100.00%	169	-	-
0043-046-8500-7019-4280 - Optical Insurance	\$ 20	Customer	100.00%	0.00%	0.00%	100.00%	20	-	-
0043-046-8500-7019-4440 - Unemployment Compensat	\$ 45	Customer	100.00%	0.00%	0.00%	100.00%	45	-	-
0043-046-8500-7021-1100 - Permanent Time Worked	\$ 22,808	Indirect	4.64%	25.63%	69.73%	100.00%	1,059	5,846	15,903
0043-046-8500-7021-1800 - Equipment Allowance	\$ 195	Indirect	4.64%	25.63%	69.73%	100.00%	9	50	136
0043-046-8500-7021-4220 - Life Insurance	\$ 50	Indirect	4.64%	25.63%	69.73%	100.00%	2	13	35
0043-046-8500-7021-4230 - Medical Insurance	\$ 2,962	Indirect	4.64%	25.63%	69.73%	100.00%	138	759	2,065
0043-046-8500-7021-4234 - Disability Insurance	\$ 125	Indirect	4.64%	25.63%	69.73%	100.00%	6	32	87
0043-046-8500-7021-4238 - Veba Funding	\$ 3,971	Indirect	4.64%	25.63%	69.73%	100.00%	184	1,018	2,769
0043-046-8500-7021-4240 - Workers Comp	\$ 302	Indirect	4.64%	25.63%	69.73%	100.00%	14	77	211
0043-046-8500-7021-4250 - Social Security-Employer	\$ 1,761	Indirect	4.64%	25.63%	69.73%	100.00%	82	451	1,228
0043-046-8500-7021-4259 - Retirement Contribution	\$ 5,269	Indirect	4.64%	25.63%	69.73%	100.00%	245	1,350	3,674
0043-046-8500-7021-4270 - Dental Insurance	\$ 225	Indirect	4.64%	25.63%	69.73%	100.00%	10	58	157
0043-046-8500-7021-4280 - Optical Insurance	\$ 26	Indirect	4.64%	25.63%	69.73%	100.00%	1	7	18
0043-046-8500-7021-4440 - Unemployment Compensat	\$ 56	Indirect	4.64%	25.63%	69.73%	100.00%	3	14	39
0043-046-8500-7022-1100 - Permanent Time Worked	\$ 13,300	Indirect	4.64%	25.63%	69.73%	100.00%	618	3,409	9,274
0043-046-8500-7022-1721 - Annual Sick Leave Payout	\$ 2,936	Indirect	4.64%	25.63%	69.73%	100.00%	136	753	2,047
0043-046-8500-7022-1800 - Equipment Allowance	\$ 121	Indirect	4.64%	25.63%	69.73%	100.00%	6	31	84
0043-046-8500-7022-4220 - Life Insurance	\$ 32	Indirect	4.64%	25.63%	69.73%	100.00%	1	8	22
0043-046-8500-7022-4230 - Medical Insurance	\$ 222	Indirect	4.64%	25.63%	69.73%	100.00%	10	57	155
0043-046-8500-7022-4234 - Disability Insurance	\$ 81	Indirect	4.64%	25.63%	69.73%	100.00%	4	21	56
0043-046-8500-7022-4237 - Retiree Health Savings Accc	\$ 8	Indirect	4.64%	25.63%	69.73%	100.00%	0	2	6
0043-046-8500-7022-4238 - Veba Funding	\$ 2,383	Indirect	4.64%	25.63%	69.73%	100.00%	111	611	1,662
0043-046-8500-7022-4240 - Workers Comp	\$ 110	Indirect	4.64%	25.63%	69.73%	100.00%	5	28	77
0043-046-8500-7022-4250 - Social Security-Employer	\$ 1,250	Indirect	4.64%	25.63%	69.73%	100.00%	58	320	872
0043-046-8500-7022-4259 - Retirement Contribution	\$ 3,750	Indirect	4.64%	25.63%	69.73%	100.00%	174	961	2,615
0043-046-8500-7022-4270 - Dental Insurance	\$ 180	Indirect	4.64%	25.63%	69.73%	100.00%	8	46	126
0043-046-8500-7022-4280 - Optical Insurance	\$ 21	Indirect	4.64%	25.63%	69.73%	100.00%	1	5	15
0043-046-8500-7022-4440 - Unemployment Compensat	\$ 36	Indirect	4.64%	25.63%	69.73%	100.00%	2	9	25
0043-046-8500-7023-1100 - Permanent Time Worked	\$ 4,215	Indirect	4.64%	25.63%	69.73%	100.00%	196	1,080	2,939
0043-046-8500-7023-1800 - Equipment Allowance	\$ 39	Indirect	4.64%	25.63%	69.73%	100.00%	2	10	27
0043-046-8500-7023-4220 - Life Insurance	\$ 10	Indirect	4.64%	25.63%	69.73%	100.00%	0	3	7
0043-046-8500-7023-4230 - Medical Insurance	\$ 25	Indirect	4.64%	25.63%	69.73%	100.00%	1	6	17
0043-046-8500-7023-4234 - Disability Insurance	\$ 25	Indirect	4.64%	25.63%	69.73%	100.00%	1	6	17
0043-046-8500-7023-4238 - Veba Funding	\$ 794	Indirect	4.64%	25.63%	69.73%	100.00%	37	204	554
0043-046-8500-7023-4240 - Workers Comp	\$ 79	Indirect	4.64%	25.63%	69.73%	100.00%	4	20	55
0043-046-8500-7023-4250 - Social Security-Employer	\$ 326	Indirect	4.64%	25.63%	69.73%	100.00%	15	84	227
0043-046-8500-7023-4259 - Retirement Contribution	\$ 974	Indirect	4.64%	25.63%	69.73%	100.00%	45	250	679
0043-046-8500-7023-4440 - Unemployment Compensat	\$ 11	Indirect	4.64%	25.63%	69.73%	100.00%	1	3	8
0043-046-8500-7024-1100 - Permanent Time Worked	\$ 113,293	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	30,451	82,842
0043-046-8500-7024-1800 - Equipment Allowance	\$ 1,264	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	340	924
0043-046-8500-7024-4220 - Life Insurance	\$ 329	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	88	241
0043-046-8500-7024-4230 - Medical Insurance	\$ 16,695	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	4,487	12,208
0043-046-8500-7024-4234 - Disability Insurance	\$ 807	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	217	590
0043-046-8500-7024-4237 - Retiree Health Savings Accc	\$ 806	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	217	589

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-046-8500-7024-4238 - Veba Funding	\$ 10,324	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,775	7,549
0043-046-8500-7024-4240 - Workers Comp	\$ 1,236	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	332	904
0043-046-8500-7024-4250 - Social Security-Employer	\$ 8,764	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,356	6,408
0043-046-8500-7024-4259 - Retirement Contribution	\$ 26,171	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	7,034	19,137
0043-046-8500-7024-4270 - Dental Insurance	\$ 1,262	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	339	923
0043-046-8500-7024-4280 - Optical Insurance	\$ 181	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	49	132
0043-046-8500-7024-4440 - Unemployment Compensat	\$ 367	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	99	268
0043-061-6100-1000-1100 - Permanent Time Worked	\$ 86,205	Collection	0.00%	100.00%	0.00%	100.00%	-	86,205	-
0043-061-6100-1000-1401 - Overtime Paid-Permanent	\$ 700	Collection	0.00%	100.00%	0.00%	100.00%	-	700	-
0043-061-6100-1000-1721 - Annual Sick Leave Payout	\$ 289	Collection	0.00%	100.00%	0.00%	100.00%	-	289	-
0043-061-6100-1000-1741 - Longevity Pay	\$ 360	Collection	0.00%	100.00%	0.00%	100.00%	-	360	-
0043-061-6100-1000-1800 - Equipment Allowance	\$ 1,050	Collection	0.00%	100.00%	0.00%	100.00%	-	1,050	-
0043-061-6100-1000-2100 - Professional Services	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-1000-2240 - Telecommunications	\$ 4,200	Collection	0.00%	100.00%	0.00%	100.00%	-	4,200	-
0043-061-6100-1000-2420 - Rent Outside Vehicles/Mile	\$ 200	Collection	0.00%	100.00%	0.00%	100.00%	-	200	-
0043-061-6100-1000-2430 - Contracted Services	\$ 200	Collection	0.00%	100.00%	0.00%	100.00%	-	200	-
0043-061-6100-1000-2700 - Conference Training & Trav	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-1000-2702 - Educational Reimbursemen	\$ 1,200	Collection	0.00%	100.00%	0.00%	100.00%	-	1,200	-
0043-061-6100-1000-2951 - Employee Recognition	\$ 500	Collection	0.00%	100.00%	0.00%	100.00%	-	500	-
0043-061-6100-1000-3300 - Uniforms & Accessories	\$ 3,300	Collection	0.00%	100.00%	0.00%	100.00%	-	3,300	-
0043-061-6100-1000-3400 - Materials & Supplies	\$ 260	Collection	0.00%	100.00%	0.00%	100.00%	-	260	-
0043-061-6100-1000-4220 - Life Insurance	\$ 185	Collection	0.00%	100.00%	0.00%	100.00%	-	185	-
0043-061-6100-1000-4230 - Medical Insurance	\$ 16,368	Collection	0.00%	100.00%	0.00%	100.00%	-	16,368	-
0043-061-6100-1000-4234 - Disability Insurance	\$ 280	Collection	0.00%	100.00%	0.00%	100.00%	-	280	-
0043-061-6100-1000-4237 - Retiree Health Savings Acc	\$ 232	Collection	0.00%	100.00%	0.00%	100.00%	-	232	-
0043-061-6100-1000-4238 - Veba Funding	\$ 13,501	Collection	0.00%	100.00%	0.00%	100.00%	-	13,501	-
0043-061-6100-1000-4240 - Workers Comp	\$ 395	Collection	0.00%	100.00%	0.00%	100.00%	-	395	-
0043-061-6100-1000-4250 - Social Security-Employer	\$ 6,637	Collection	0.00%	100.00%	0.00%	100.00%	-	6,637	-
0043-061-6100-1000-4259 - Retirement Contribution	\$ 20,063	Collection	0.00%	100.00%	0.00%	100.00%	-	20,063	-
0043-061-6100-1000-4260 - Insurance Premiums	\$ 6,069	Collection	0.00%	100.00%	0.00%	100.00%	-	6,069	-
0043-061-6100-1000-4270 - Dental Insurance	\$ 1,273	Collection	0.00%	100.00%	0.00%	100.00%	-	1,273	-
0043-061-6100-1000-4280 - Optical Insurance	\$ 147	Collection	0.00%	100.00%	0.00%	100.00%	-	147	-
0043-061-6100-1000-4300 - Dues & Licenses	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-1000-4423 - Transfer To IT Fund	\$ 121,253	Collection	0.00%	100.00%	0.00%	100.00%	-	121,253	-
0043-061-6100-1000-4440 - Unemployment Compensat	\$ 256	Collection	0.00%	100.00%	0.00%	100.00%	-	256	-
0043-061-6100-1100-4239 - Retiree Medical Insurance	\$ 141,792	Collection	0.00%	100.00%	0.00%	100.00%	-	141,792	-
0043-061-6100-4500-1100 - Permanent Time Worked	\$ 33,866	Collection	0.00%	100.00%	0.00%	100.00%	-	33,866	-
0043-061-6100-4500-1200 - Temporary Pay	\$ 8,767	Collection	0.00%	100.00%	0.00%	100.00%	-	8,767	-
0043-061-6100-4500-1800 - Equipment Allowance	\$ 312	Collection	0.00%	100.00%	0.00%	100.00%	-	312	-
0043-061-6100-4500-2240 - Telecommunications	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-4500-4220 - Life Insurance	\$ 80	Collection	0.00%	100.00%	0.00%	100.00%	-	80	-
0043-061-6100-4500-4230 - Medical Insurance	\$ 5,873	Collection	0.00%	100.00%	0.00%	100.00%	-	5,873	-
0043-061-6100-4500-4234 - Disability Insurance	\$ 199	Collection	0.00%	100.00%	0.00%	100.00%	-	199	-
0043-061-6100-4500-4237 - Retiree Health Savings Acc	\$ 332	Collection	0.00%	100.00%	0.00%	100.00%	-	332	-
0043-061-6100-4500-4240 - Workers Comp	\$ 229	Collection	0.00%	100.00%	0.00%	100.00%	-	229	-
0043-061-6100-4500-4250 - Social Security-Employer	\$ 2,614	Collection	0.00%	100.00%	0.00%	100.00%	-	2,614	-
0043-061-6100-4500-4259 - Retirement Contribution	\$ 7,823	Collection	0.00%	100.00%	0.00%	100.00%	-	7,823	-
0043-061-6100-4500-4270 - Dental Insurance	\$ 451	Collection	0.00%	100.00%	0.00%	100.00%	-	451	-
0043-061-6100-4500-4280 - Optical Insurance	\$ 53	Collection	0.00%	100.00%	0.00%	100.00%	-	53	-
0043-061-6100-4500-4300 - Dues & Licenses	\$ 50	Collection	0.00%	100.00%	0.00%	100.00%	-	50	-

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-061-6100-4500-4440 - Unemployment Compensat	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-061-6100-6210-1100 - Permanent Time Worked	\$ 114,974	Collection	0.00%	100.00%	0.00%	100.00%	-	114,974	-
0043-061-6100-6210-1200 - Temporary Pay	\$ 5,312	Collection	0.00%	100.00%	0.00%	100.00%	-	5,312	-
0043-061-6100-6210-1401 - Overtime Paid-Permanent	\$ 10,000	Collection	0.00%	100.00%	0.00%	100.00%	-	10,000	-
0043-061-6100-6210-1741 - Longevity Pay	\$ 1,020	Collection	0.00%	100.00%	0.00%	100.00%	-	1,020	-
0043-061-6100-6210-1800 - Equipment Allowance	\$ 990	Collection	0.00%	100.00%	0.00%	100.00%	-	990	-
0043-061-6100-6210-2330 - Radio Maintenance	\$ 1,205	Collection	0.00%	100.00%	0.00%	100.00%	-	1,205	-
0043-061-6100-6210-2331 - Radio System Service Chrg	\$ 10,475	Collection	0.00%	100.00%	0.00%	100.00%	-	10,475	-
0043-061-6100-6210-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-6210-2421 - Fleet Maintenance & Repai	\$ 80,468	Collection	0.00%	100.00%	0.00%	100.00%	-	80,468	-
0043-061-6100-6210-2422 - Fleet Fuel	\$ 17,516	Collection	0.00%	100.00%	0.00%	100.00%	-	17,516	-
0043-061-6100-6210-2423 - Fleet Depreciation	\$ 88,778	Collection	0.00%	100.00%	0.00%	100.00%	-	88,778	-
0043-061-6100-6210-2424 - Fleet Management	\$ 4,498	Collection	0.00%	100.00%	0.00%	100.00%	-	4,498	-
0043-061-6100-6210-2430 - Contracted Services	\$ 45,500	Collection	0.00%	100.00%	0.00%	100.00%	-	45,500	-
0043-061-6100-6210-2700 - Conference Training & Trav	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-6210-3300 - Uniforms & Accessories	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-061-6100-6210-3400 - Materials & Supplies	\$ 250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	250
0043-061-6100-6210-4220 - Life Insurance	\$ 140	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	140
0043-061-6100-6210-4230 - Medical Insurance	\$ 26,023	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,023
0043-061-6100-6210-4234 - Disability Insurance	\$ 70	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	70
0043-061-6100-6210-4237 - Retiree Health Savings Acc	\$ 249	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	249
0043-061-6100-6210-4238 - Veba Funding	\$ 23,667	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	23,667
0043-061-6100-6210-4240 - Workers Comp	\$ 4,129	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,129
0043-061-6100-6210-4250 - Social Security-Employer	\$ 8,885	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	8,885
0043-061-6100-6210-4259 - Retirement Contribution	\$ 26,795	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,795
0043-061-6100-6210-4270 - Dental Insurance	\$ 2,016	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,016
0043-061-6100-6210-4280 - Optical Insurance	\$ 236	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	236
0043-061-6100-6210-4300 - Dues & Licenses	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-061-6100-6210-4424 - Transfer To Maintenance Fa	\$ 40,487	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	40,487
0043-061-6100-6210-4440 - Unemployment Compensat	\$ 405	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	405
0043-061-6100-7031-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7031-2421 - Fleet Maintenance & Repai	\$ 91,110	Collection	0.00%	100.00%	0.00%	100.00%	-	91,110	-
0043-061-6100-7031-2422 - Fleet Fuel	\$ 11,477	Collection	0.00%	100.00%	0.00%	100.00%	-	11,477	-
0043-061-6100-7031-2423 - Fleet Depreciation	\$ 50,382	Collection	0.00%	100.00%	0.00%	100.00%	-	50,382	-
0043-061-6100-7031-2424 - Fleet Management	\$ 2,422	Collection	0.00%	100.00%	0.00%	100.00%	-	2,422	-
0043-061-6100-7061-2310 - Building Maintenance	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7064-1100 - Permanent Time Worked	\$ 25,651	Collection	0.00%	100.00%	0.00%	100.00%	-	25,651	-
0043-061-6100-7064-1741 - Longevity Pay	\$ 600	Collection	0.00%	100.00%	0.00%	100.00%	-	600	-
0043-061-6100-7064-1800 - Equipment Allowance	\$ 312	Collection	0.00%	100.00%	0.00%	100.00%	-	312	-
0043-061-6100-7064-3400 - Materials & Supplies	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-7064-4220 - Life Insurance	\$ 30	Collection	0.00%	100.00%	0.00%	100.00%	-	30	-
0043-061-6100-7064-4230 - Medical Insurance	\$ 5,673	Collection	0.00%	100.00%	0.00%	100.00%	-	5,673	-
0043-061-6100-7064-4238 - Veba Funding	\$ 6,354	Collection	0.00%	100.00%	0.00%	100.00%	-	6,354	-
0043-061-6100-7064-4240 - Workers Comp	\$ 1,001	Collection	0.00%	100.00%	0.00%	100.00%	-	1,001	-
0043-061-6100-7064-4250 - Social Security-Employer	\$ 1,995	Collection	0.00%	100.00%	0.00%	100.00%	-	1,995	-
0043-061-6100-7064-4259 - Retirement Contribution	\$ 6,064	Collection	0.00%	100.00%	0.00%	100.00%	-	6,064	-
0043-061-6100-7064-4270 - Dental Insurance	\$ 451	Collection	0.00%	100.00%	0.00%	100.00%	-	451	-
0043-061-6100-7064-4280 - Optical Insurance	\$ 53	Collection	0.00%	100.00%	0.00%	100.00%	-	53	-
0043-061-6100-7064-4300 - Dues & Licenses	\$ 1,500	Collection	0.00%	100.00%	0.00%	100.00%	-	1,500	-
0043-061-6100-7064-4440 - Unemployment Compensat	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-061-6100-7072-1100 - Permanent Time Worked	\$ 71,267	Collection	0.00%	100.00%	0.00%	100.00%	-	71,267	-

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-061-6100-7072-1741 - Longevity Pay	\$ 390	Collection	0.00%	100.00%	0.00%	100.00%	-	390	-
0043-061-6100-7072-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7072-3400 - Materials & Supplies	\$ 3,500	Collection	0.00%	100.00%	0.00%	100.00%	-	3,500	-
0043-061-6100-7072-4220 - Life Insurance	\$ 77	Collection	0.00%	100.00%	0.00%	100.00%	-	77	-
0043-061-6100-7072-4230 - Medical Insurance	\$ 19,857	Collection	0.00%	100.00%	0.00%	100.00%	-	19,857	-
0043-061-6100-7072-4237 - Retiree Health Savings Accc	\$ 664	Collection	0.00%	100.00%	0.00%	100.00%	-	664	-
0043-061-6100-7072-4238 - Veba Funding	\$ 9,531	Collection	0.00%	100.00%	0.00%	100.00%	-	9,531	-
0043-061-6100-7072-4240 - Workers Comp	\$ 2,703	Collection	0.00%	100.00%	0.00%	100.00%	-	2,703	-
0043-061-6100-7072-4250 - Social Security-Employer	\$ 5,458	Collection	0.00%	100.00%	0.00%	100.00%	-	5,458	-
0043-061-6100-7072-4259 - Retirement Contribution	\$ 16,553	Collection	0.00%	100.00%	0.00%	100.00%	-	16,553	-
0043-061-6100-7072-4270 - Dental Insurance	\$ 1,577	Collection	0.00%	100.00%	0.00%	100.00%	-	1,577	-
0043-061-6100-7072-4280 - Optical Insurance	\$ 184	Collection	0.00%	100.00%	0.00%	100.00%	-	184	-
0043-061-6100-7072-4440 - Unemployment Compensat	\$ 316	Collection	0.00%	100.00%	0.00%	100.00%	-	316	-
0043-061-6100-7074-1100 - Permanent Time Worked	\$ 90,272	Collection	0.00%	100.00%	0.00%	100.00%	-	90,272	-
0043-061-6100-7074-1401 - Overtime Paid-Permanent	\$ 1,000	Collection	0.00%	100.00%	0.00%	100.00%	-	1,000	-
0043-061-6100-7074-1741 - Longevity Pay	\$ 765	Collection	0.00%	100.00%	0.00%	100.00%	-	765	-
0043-061-6100-7074-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7074-2430 - Contracted Services	\$ 41,108	Collection	0.00%	100.00%	0.00%	100.00%	-	41,108	-
0043-061-6100-7074-2700 - Conference Training & Trav	\$ 2,925	Collection	0.00%	100.00%	0.00%	100.00%	-	2,925	-
0043-061-6100-7074-3400 - Materials & Supplies	\$ 3,000	Collection	0.00%	100.00%	0.00%	100.00%	-	3,000	-
0043-061-6100-7074-4220 - Life Insurance	\$ 104	Collection	0.00%	100.00%	0.00%	100.00%	-	104	-
0043-061-6100-7074-4230 - Medical Insurance	\$ 21,275	Collection	0.00%	100.00%	0.00%	100.00%	-	21,275	-
0043-061-6100-7074-4237 - Retiree Health Savings Accc	\$ 332	Collection	0.00%	100.00%	0.00%	100.00%	-	332	-
0043-061-6100-7074-4238 - Veba Funding	\$ 17,472	Collection	0.00%	100.00%	0.00%	100.00%	-	17,472	-
0043-061-6100-7074-4240 - Workers Comp	\$ 3,432	Collection	0.00%	100.00%	0.00%	100.00%	-	3,432	-
0043-061-6100-7074-4250 - Social Security-Employer	\$ 6,919	Collection	0.00%	100.00%	0.00%	100.00%	-	6,919	-
0043-061-6100-7074-4259 - Retirement Contribution	\$ 21,030	Collection	0.00%	100.00%	0.00%	100.00%	-	21,030	-
0043-061-6100-7074-4270 - Dental Insurance	\$ 1,689	Collection	0.00%	100.00%	0.00%	100.00%	-	1,689	-
0043-061-6100-7074-4280 - Optical Insurance	\$ 197	Collection	0.00%	100.00%	0.00%	100.00%	-	197	-
0043-061-6100-7074-4440 - Unemployment Compensat	\$ 339	Collection	0.00%	100.00%	0.00%	100.00%	-	339	-
0043-061-6100-7074-6600.6650 - Repair Parts Outside R	\$ 21,000	Collection	0.00%	100.00%	0.00%	100.00%	-	21,000	-
0043-061-6100-7077-1100 - Permanent Time Worked	\$ 63,266	Collection	0.00%	100.00%	0.00%	100.00%	-	63,266	-
0043-061-6100-7077-1741 - Longevity Pay	\$ 270	Collection	0.00%	100.00%	0.00%	100.00%	-	270	-
0043-061-6100-7077-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7077-2424 - Fleet Management	\$ 173	Collection	0.00%	100.00%	0.00%	100.00%	-	173	-
0043-061-6100-7077-2430 - Contracted Services	\$ 75,000	Collection	0.00%	100.00%	0.00%	100.00%	-	75,000	-
0043-061-6100-7077-3400 - Materials & Supplies	\$ 12,500	Collection	0.00%	100.00%	0.00%	100.00%	-	12,500	-
0043-061-6100-7077-3440 - Property Plant & Equipmen	\$ 2,000	Collection	0.00%	100.00%	0.00%	100.00%	-	2,000	-
0043-061-6100-7077-4220 - Life Insurance	\$ 85	Collection	0.00%	100.00%	0.00%	100.00%	-	85	-
0043-061-6100-7077-4230 - Medical Insurance	\$ 16,311	Collection	0.00%	100.00%	0.00%	100.00%	-	16,311	-
0043-061-6100-7077-4237 - Retiree Health Savings Accc	\$ 540	Collection	0.00%	100.00%	0.00%	100.00%	-	540	-
0043-061-6100-7077-4238 - Veba Funding	\$ 7,942	Collection	0.00%	100.00%	0.00%	100.00%	-	7,942	-
0043-061-6100-7077-4240 - Workers Comp	\$ 2,396	Collection	0.00%	100.00%	0.00%	100.00%	-	2,396	-
0043-061-6100-7077-4250 - Social Security-Employer	\$ 4,844	Collection	0.00%	100.00%	0.00%	100.00%	-	4,844	-
0043-061-6100-7077-4259 - Retirement Contribution	\$ 14,677	Collection	0.00%	100.00%	0.00%	100.00%	-	14,677	-



Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-061-6100-7077-4270 - Dental Insurance	\$ 1,296	Collection	0.00%	100.00%	0.00%	100.00%	-	1,296	-
0043-061-6100-7077-4280 - Optical Insurance	\$ 152	Collection	0.00%	100.00%	0.00%	100.00%	-	152	-
0043-061-6100-7077-4440 - Unemployment Compensat	\$ 260	Collection	0.00%	100.00%	0.00%	100.00%	-	260	-
0043-061-6100-7083-1100 - Permanent Time Worked	\$ 177,153	Collection	0.00%	100.00%	0.00%	100.00%	-	177,153	-
0043-061-6100-7083-1401 - Overtime Paid-Permanent	\$ 2,000	Collection	0.00%	100.00%	0.00%	100.00%	-	2,000	-
0043-061-6100-7083-1741 - Longevity Pay	\$ 1,560	Collection	0.00%	100.00%	0.00%	100.00%	-	1,560	-
0043-061-6100-7083-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7083-2435 - Tipping Fees	\$ 5,665	Collection	0.00%	100.00%	0.00%	100.00%	-	5,665	-
0043-061-6100-7083-3400 - Materials & Supplies	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7083-4220 - Life Insurance	\$ 155	Collection	0.00%	100.00%	0.00%	100.00%	-	155	-
0043-061-6100-7083-4230 - Medical Insurance	\$ 35,175	Collection	0.00%	100.00%	0.00%	100.00%	-	35,175	-
0043-061-6100-7083-4237 - Retiree Health Savings Accc	\$ 1,851	Collection	0.00%	100.00%	0.00%	100.00%	-	1,851	-
0043-061-6100-7083-4238 - Veba Funding	\$ 19,855	Collection	0.00%	100.00%	0.00%	100.00%	-	19,855	-
0043-061-6100-7083-4240 - Workers Comp	\$ 6,739	Collection	0.00%	100.00%	0.00%	100.00%	-	6,739	-
0043-061-6100-7083-4250 - Social Security-Employer	\$ 13,575	Collection	0.00%	100.00%	0.00%	100.00%	-	13,575	-
0043-061-6100-7083-4259 - Retirement Contribution	\$ 41,283	Collection	0.00%	100.00%	0.00%	100.00%	-	41,283	-
0043-061-6100-7083-4270 - Dental Insurance	\$ 2,793	Collection	0.00%	100.00%	0.00%	100.00%	-	2,793	-
0043-061-6100-7083-4280 - Optical Insurance	\$ 327	Collection	0.00%	100.00%	0.00%	100.00%	-	327	-
0043-061-6100-7083-4440 - Unemployment Compensat	\$ 787	Collection	0.00%	100.00%	0.00%	100.00%	-	787	-
0043-061-6100-7092-1100 - Permanent Time Worked	\$ 49,751	Collection	0.00%	100.00%	0.00%	100.00%	-	49,751	-
0043-061-6100-7092-1401 - Overtime Paid-Permanent	\$ 2,500	Collection	0.00%	100.00%	0.00%	100.00%	-	2,500	-
0043-061-6100-7092-1741 - Longevity Pay	\$ 351	Collection	0.00%	100.00%	0.00%	100.00%	-	351	-
0043-061-6100-7092-2410 - Rent City Vehicles	\$ 1	Collection	0.00%	100.00%	0.00%	100.00%	-	1	-
0043-061-6100-7092-2430 - Contracted Services	\$ 25,000	Collection	0.00%	100.00%	0.00%	100.00%	-	25,000	-
0043-061-6100-7092-3400 - Materials & Supplies	\$ 30,413	Collection	0.00%	100.00%	0.00%	100.00%	-	30,413	-
0043-061-6100-7092-3440 - Property Plant & Equipmen	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-061-6100-7092-4220 - Life Insurance	\$ 62	Collection	0.00%	100.00%	0.00%	100.00%	-	62	-
0043-061-6100-7092-4230 - Medical Insurance	\$ 13,473	Collection	0.00%	100.00%	0.00%	100.00%	-	13,473	-
0043-061-6100-7092-4237 - Retiree Health Savings Accc	\$ 515	Collection	0.00%	100.00%	0.00%	100.00%	-	515	-
0043-061-6100-7092-4238 - Veba Funding	\$ 5,241	Collection	0.00%	100.00%	0.00%	100.00%	-	5,241	-
0043-061-6100-7092-4240 - Workers Comp	\$ 1,889	Collection	0.00%	100.00%	0.00%	100.00%	-	1,889	-
0043-061-6100-7092-4250 - Social Security-Employer	\$ 3,811	Collection	0.00%	100.00%	0.00%	100.00%	-	3,811	-
0043-061-6100-7092-4259 - Retirement Contribution	\$ 11,573	Collection	0.00%	100.00%	0.00%	100.00%	-	11,573	-
0043-061-6100-7092-4270 - Dental Insurance	\$ 1,070	Collection	0.00%	100.00%	0.00%	100.00%	-	1,070	-
0043-061-6100-7092-4280 - Optical Insurance	\$ 126	Collection	0.00%	100.00%	0.00%	100.00%	-	126	-
0043-061-6100-7092-4440 - Unemployment Compensat	\$ 215	Collection	0.00%	100.00%	0.00%	100.00%	-	215	-
0043-061-6100-9000-4100 - Depreciation	\$ 57,977	Collection	0.00%	100.00%	0.00%	100.00%	-	57,977	-
0043-061-6100-9000-5130 - Equipment	\$ 25,000	Collection	0.00%	100.00%	0.00%	100.00%	-	25,000	-
0043-070-1000-1000-1100 - Permanent Time Worked	\$ 40,582	Collection	0.00%	100.00%	0.00%	100.00%	-	40,582	-
0043-070-1000-1000-1200 - Temporary Pay	\$ 5,000	Collection	0.00%	100.00%	0.00%	100.00%	-	5,000	-
0043-070-1000-1000-1721 - Annual Sick Leave Payout	\$ 470	Collection	0.00%	100.00%	0.00%	100.00%	-	470	-
0043-070-1000-1000-1800 - Equipment Allowance	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-1000-1000-2100 - Professional Services	\$ 15,000	Collection	0.00%	100.00%	0.00%	100.00%	-	15,000	-
0043-070-1000-1000-2150 - Legal Expenses	\$ 20,000	Collection	0.00%	100.00%	0.00%	100.00%	-	20,000	-
0043-070-1000-1000-2700 - Conference Training & Trav	\$ 3,000	Collection	0.00%	100.00%	0.00%	100.00%	-	3,000	-
0043-070-1000-1000-2951 - Employee Recognition	\$ 100	Collection	0.00%	100.00%	0.00%	100.00%	-	100	-
0043-070-1000-1000-4220 - Life Insurance	\$ 105	Collection	0.00%	100.00%	0.00%	100.00%	-	105	-
0043-070-1000-1000-4230 - Medical Insurance	\$ 7,217	Collection	0.00%	100.00%	0.00%	100.00%	-	7,217	-
0043-070-1000-1000-4234 - Disability Insurance	\$ 248	Collection	0.00%	100.00%	0.00%	100.00%	-	248	-
0043-070-1000-1000-4237 - Retiree Health Savings Accc	\$ 208	Collection	0.00%	100.00%	0.00%	100.00%	-	208	-
0043-070-1000-1000-4238 - Veba Funding	\$ 3,971	Collection	0.00%	100.00%	0.00%	100.00%	-	3,971	-

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-070-1000-1000-4240 - Workers Comp	\$ 115	Collection	0.00%	100.00%	0.00%	100.00%	-	115	-
0043-070-1000-1000-4250 - Social Security-Employer	\$ 3,147	Collection	0.00%	100.00%	0.00%	100.00%	-	3,147	-
0043-070-1000-1000-4257 - Excess Pension Refund	\$ 47,692	Collection	0.00%	100.00%	0.00%	100.00%	-	47,692	-
0043-070-1000-1000-4259 - Retirement Contribution	\$ 9,484	Collection	0.00%	100.00%	0.00%	100.00%	-	9,484	-
0043-070-1000-1000-4260 - Insurance Premiums	\$ 195,798	Collection	0.00%	100.00%	0.00%	100.00%	-	195,798	-
0043-070-1000-1000-4270 - Dental Insurance	\$ 564	Collection	0.00%	100.00%	0.00%	100.00%	-	564	-
0043-070-1000-1000-4280 - Optical Insurance	\$ 66	Collection	0.00%	100.00%	0.00%	100.00%	-	66	-
0043-070-1000-1000-4300 - Dues & Licenses	\$ 12,000	Collection	0.00%	100.00%	0.00%	100.00%	-	12,000	-
0043-070-1000-1000-4310 - Municipal Service Charges	\$ 664,843	Collection	0.00%	100.00%	0.00%	100.00%	-	664,843	-
0043-070-1000-1000-4420 - Transfer To Other Funds	\$ 517,586	Customer	100.00%	0.00%	0.00%	100.00%	517,586	-	-
Transfer to Other funds	\$ 151,281	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	40,662	110,619
0043-070-1000-1000-4440 - Unemployment Compensat	\$ 114	Collection	0.00%	100.00%	0.00%	100.00%	-	114	-
0043-070-8501-9000-1100 - Permanent Time Worked	\$ 63,416	Collection	0.00%	100.00%	0.00%	100.00%	-	63,416	-
0043-070-8501-9000-1751 - Benefit Waiver Pay	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-8501-9000-1800 - Equipment Allowance	\$ 510	Collection	0.00%	100.00%	0.00%	100.00%	-	510	-
0043-070-8501-9000-4220 - Life Insurance	\$ 147	Collection	0.00%	100.00%	0.00%	100.00%	-	147	-
0043-070-8501-9000-4230 - Medical Insurance	\$ 9,275	Collection	0.00%	100.00%	0.00%	100.00%	-	9,275	-
0043-070-8501-9000-4234 - Disability Insurance	\$ 339	Collection	0.00%	100.00%	0.00%	100.00%	-	339	-
0043-070-8501-9000-4237 - Retiree Health Savings Accc	\$ 341	Collection	0.00%	100.00%	0.00%	100.00%	-	341	-
0043-070-8501-9000-4238 - Veba Funding	\$ 4,288	Collection	0.00%	100.00%	0.00%	100.00%	-	4,288	-
0043-070-8501-9000-4240 - Workers Comp	\$ 681	Collection	0.00%	100.00%	0.00%	100.00%	-	681	-
0043-070-8501-9000-4250 - Social Security-Employer	\$ 4,889	Collection	0.00%	100.00%	0.00%	100.00%	-	4,889	-
0043-070-8501-9000-4259 - Retirement Contribution	\$ 14,648	Collection	0.00%	100.00%	0.00%	100.00%	-	14,648	-
0043-070-8501-9000-4270 - Dental Insurance	\$ 766	Collection	0.00%	100.00%	0.00%	100.00%	-	766	-
0043-070-8501-9000-4280 - Optical Insurance	\$ 90	Collection	0.00%	100.00%	0.00%	100.00%	-	90	-
0043-070-8501-9000-4440 - Unemployment Compensat	\$ 154	Collection	0.00%	100.00%	0.00%	100.00%	-	154	-
0043-075-5000-1000-1100 - Permanent Time Worked	\$ 413,448	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	413,448
0043-075-5000-1000-1741 - Longevity Pay	\$ 1,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,200
0043-075-5000-1000-1751 - Benefit Waiver Pay	\$ 1,710	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,710
0043-075-5000-1000-1800 - Equipment Allowance	\$ 2,190	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,190
0043-075-5000-1000-2100 - Professional Services	\$ 225,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	225,000
0043-075-5000-1000-2240 - Telecommunications	\$ 7,725	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,725
0043-075-5000-1000-2310 - Building Maintenance	\$ 4,120	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,120
0043-075-5000-1000-2320 - Equipment Maintenance	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5000-1000-2330 - Radio Maintenance	\$ 71	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	71
0043-075-5000-1000-2331 - Radio System Service Charg	\$ 8,877	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	8,877
0043-075-5000-1000-2430 - Contracted Services	\$ 81,678	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	81,678
0043-075-5000-1000-2500 - Printing	\$ 500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	500
0043-075-5000-1000-2640 - Software	\$ 7,781	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,781
0043-075-5000-1000-2660 - Software Maintenance	\$ 9,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	9,000
0043-075-5000-1000-2700 - Conference Training & Trav	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5000-1000-2702 - Educational Reimbursemen	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5000-1000-2850 - Advertising	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5000-1000-2951 - Employee Recognition	\$ 1,881	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,881
0043-075-5000-1000-3100 - Postage	\$ 300	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	300
0043-075-5000-1000-3300 - Uniforms & Accessories	\$ 200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	200
0043-075-5000-1000-3400 - Materials & Supplies	\$ 7,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,500
0043-075-5000-1000-4220 - Life Insurance	\$ 801	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	801

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-075-5000-1000-4230 - Medical Insurance	\$ 63,639	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	63,639
0043-075-5000-1000-4234 - Disability Insurance	\$ 1,653	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,653
0043-075-5000-1000-4237 - Retiree Health Savings Accc	\$ 1,320	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,320
0043-075-5000-1000-4238 - Veba Funding	\$ 59,248	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	59,248
0043-075-5000-1000-4240 - Workers Comp	\$ 4,949	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,949
0043-075-5000-1000-4250 - Social Security-Employer	\$ 31,817	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	31,817
0043-075-5000-1000-4259 - Retirement Contribution	\$ 95,783	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	95,783
0043-075-5000-1000-4270 - Dental Insurance	\$ 5,992	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,992
0043-075-5000-1000-4280 - Optical Insurance	\$ 701	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	701
0043-075-5000-1000-4300 - Dues & Licenses	\$ 1,600	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,600
0043-075-5000-1000-4423 - Transfer To IT Fund	\$ 100,029	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	100,029
0043-075-5000-1000-4440 - Unemployment Compensat	\$ 1,202	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,202
0043-075-5000-1100-3300 - Uniforms & Accessories	\$ 16,480	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,480
0043-075-5000-1100-4239 - Retiree Medical Insurance	\$ 455,760	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	455,760
0043-075-5300-7031-2421 - Fleet Maintenance & Repai	\$ 29,299	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	29,299
0043-075-5300-7031-2423 - Fleet Depreciation	\$ 24,005	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	24,005
0043-075-5300-7031-2424 - Fleet Management	\$ 1,730	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,730
0043-075-5300-7043-1100 - Permanent Time Worked	\$ 964,373	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	964,373
0043-075-5300-7043-1401 - Overtime Paid-Permanent	\$ 162,740	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	162,740
0043-075-5300-7043-1721 - Annual Sick Leave Payout	\$ 3,223	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,223
0043-075-5300-7043-1741 - Longevity Pay	\$ 5,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,400
0043-075-5300-7043-1751 - Benefit Waiver Pay	\$ 1,800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,800
0043-075-5300-7043-2210 - Natural Gas	\$ 200,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	200,000
0043-075-5300-7043-2211 - Other Fuels	\$ 30,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	30,000
0043-075-5300-7043-2220 - Electricity	\$ 1,150,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,150,000
0043-075-5300-7043-2230 - Water	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5300-7043-2430 - Contracted Services	\$ 67,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	67,000
0043-075-5300-7043-3200 - Chemicals	\$ 50,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	50,000
0043-075-5300-7043-3400 - Materials & Supplies	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5300-7043-4215 - Deferred Comp Contributio	\$ 520	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	520
0043-075-5300-7043-4220 - Life Insurance	\$ 872	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	872
0043-075-5300-7043-4230 - Medical Insurance	\$ 201,062	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	201,062
0043-075-5300-7043-4237 - Retiree Health Savings Accc	\$ 6,640	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,640
0043-075-5300-7043-4238 - Veba Funding	\$ 127,072	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	127,072
0043-075-5300-7043-4240 - Workers Comp	\$ 16,808	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,808
0043-075-5300-7043-4250 - Social Security-Employer	\$ 74,098	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	74,098
0043-075-5300-7043-4259 - Retirement Contribution	\$ 224,762	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	224,762
0043-075-5300-7043-4270 - Dental Insurance	\$ 16,890	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,890
0043-075-5300-7043-4280 - Optical Insurance	\$ 1,980	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,980
0043-075-5300-7043-4300 - Dues & Licenses	\$ 16,625	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	16,625
0043-075-5300-7043-4423 - Transfer To IT Fund	\$ 48,505	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	48,505
0043-075-5300-7043-4440 - Unemployment Compensat	\$ 3,616	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,616
0043-075-5300-7051-2210 - Natural Gas	\$ 1,132	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,132
0043-075-5300-7051-2220 - Electricity	\$ 14,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	14,500
0043-075-5300-7051-3400 - Materials & Supplies	\$ 5,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	5,000
0043-075-5300-7053-1100 - Permanent Time Worked	\$ 177,004	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	177,004
0043-075-5300-7053-1200 - Temporary Pay	\$ 15,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	15,000
0043-075-5300-7053-1401 - Overtime Paid-Permanent	\$ 3,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,500
0043-075-5300-7053-1741 - Longevity Pay	\$ 525	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	525
0043-075-5300-7053-1751 - Benefit Waiver Pay	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5300-7053-2100 - Professional Services	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,213,404	19,623,737
0043-075-5300-7053-2320 - Equipment Maintenance	\$ 10,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	10,000
0043-075-5300-7053-2420 - Rent Outside Vehicles/Mile	\$ 100	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	100
0043-075-5300-7053-2700 - Conference Training & Trav	\$ 3,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,000
0043-075-5300-7053-3100 - Postage	\$ 800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	800
0043-075-5300-7053-3200 - Chemicals	\$ 7,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,000
0043-075-5300-7053-3300 - Uniforms & Accessories	\$ 800	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	800
0043-075-5300-7053-3400 - Materials & Supplies	\$ 17,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	17,500
0043-075-5300-7053-3405 - Safety Related supplies	\$ 1,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,500
0043-075-5300-7053-3440 - Property Plant & Equipmen	\$ 3,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,000
0043-075-5300-7053-4220 - Life Insurance	\$ 126	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	126
0043-075-5300-7053-4230 - Medical Insurance	\$ 26,913	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	26,913
0043-075-5300-7053-4237 - Retiree Health Savings Accc	\$ 2,084	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,084
0043-075-5300-7053-4238 - Veba Funding	\$ 7,942	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,942
0043-075-5300-7053-4240 - Workers Comp	\$ 498	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	498
0043-075-5300-7053-4250 - Social Security-Employer	\$ 13,548	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	13,548
0043-075-5300-7053-4259 - Retirement Contribution	\$ 41,009	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	41,009
0043-075-5300-7053-4270 - Dental Insurance	\$ 2,118	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,118
0043-075-5300-7053-4280 - Optical Insurance	\$ 248	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	248
0043-075-5300-7053-4300 - Dues & Licenses	\$ 2,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,500
0043-075-5300-7053-4440 - Unemployment Compensat	\$ 679	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	679
0043-075-5300-7055-2430 - Contracted Services	\$ 950,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	950,000
0043-075-5300-7055-3200 - Chemicals	\$ 395,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	395,000
0043-075-5300-7055-3400 - Materials & Supplies	\$ 7,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,000
0043-075-5300-7055-4300 - Dues & Licenses	\$ 32,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	32,000
0043-075-5300-7057-2430 - Contracted Services	\$ 25,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	25,000
0043-075-5300-7057-2500 - Printing	\$ 150	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	150
0043-075-5300-7057-3400 - Materials & Supplies	\$ 1,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,000
0043-075-5300-7060-2421 - Fleet Maintenance & Repai	\$ 10,988	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	10,988
0043-075-5300-7060-2422 - Fleet Fuel	\$ 330	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	330
0043-075-5300-7060-2424 - Fleet Management	\$ 1,903	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,903
0043-075-5600-7043-1100 - Permanent Time Worked	\$ 718,078	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	718,078
0043-075-5600-7043-1401 - Overtime Paid-Permanent	\$ 54,590	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	54,590
0043-075-5600-7043-1601 - Severance Pay	\$ 67,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	67,400
0043-075-5600-7043-1741 - Longevity Pay	\$ 7,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,200
0043-075-5600-7043-2100 - Professional Services	\$ 15,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	15,000
0043-075-5600-7043-2320 - Equipment Maintenance	\$ 132,500	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	132,500
0043-075-5600-7043-2430 - Contracted Services	\$ 65,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	65,000
0043-075-5600-7043-3400 - Materials & Supplies	\$ 90,125	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	90,125
0043-075-5600-7043-3404 - Equipment Parts/Maintena	\$ 139,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	139,000
0043-075-5600-7043-3440 - Property Plant & Equipmen	\$ 3,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	3,250
0043-075-5600-7043-4215 - Deferred Comp Contributio	\$ 520	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	520
0043-075-5600-7043-4220 - Life Insurance	\$ 710	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	710
0043-075-5600-7043-4230 - Medical Insurance	\$ 156,513	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	156,513
0043-075-5600-7043-4237 - Retiree Health Savings Accc	\$ 2,490	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,490
0043-075-5600-7043-4238 - Veba Funding	\$ 127,072	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	127,072
0043-075-5600-7043-4240 - Workers Comp	\$ 11,293	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	11,293
0043-075-5600-7043-4250 - Social Security-Employer	\$ 55,038	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	55,038
0043-075-5600-7043-4259 - Retirement Contribution	\$ 167,538	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	167,538

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS	Allocation Method	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Total % Allocation	Customer \$ Allocation	Collection \$ Allocation	Treatment \$ Allocation
							723,082	7,662,104	20,844,405
0043-075-5600-7043-4270 - Dental Insurance	\$ 12,386	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	12,386
0043-075-5600-7043-4280 - Optical Insurance	\$ 1,452	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	1,452
0043-075-5600-7043-4423 - Transfer To IT Fund	\$ 24,940	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	24,940
0043-075-5600-7043-4440 - Unemployment Compensat	\$ 2,486	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,486
0043-075-5600-7051-2310 - Building Maintenance	\$ 2,200	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	2,200
0043-075-5600-7051-2320 - Equipment Maintenance	\$ 6,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,250
0043-075-5600-7051-2430 - Contracted Services	\$ 7,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	7,250
0043-075-5600-7051-3400 - Materials & Supplies	\$ 4,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	4,000
0043-075-5600-7051-3404 - Equipment Parts/Maintena	\$ 6,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,000
0043-075-5600-7055-2310 - Building Maintenance	\$ 20,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	20,000
0043-075-5600-7055-2320 - Equipment Maintenance	\$ 20,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	20,000
0043-075-5600-7055-2430 - Contracted Services	\$ 50,000	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	50,000
0043-075-5600-7055-3400 - Materials & Supplies	\$ 6,250	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	6,250
0043-075-5600-7055-3404 - Equipment Parts/Maintena	\$ 40,400	Treatment	0.00%	0.00%	100.00%	100.00%	-	-	40,400
0043-078-8000-1000-1100 - Permanent Time Worked	\$ 23,857	Customer	100.00%	0.00%	0.00%	100.00%	23,857	-	-
0043-078-8000-1000-4220 - Life Insurance	\$ 76	Customer	100.00%	0.00%	0.00%	100.00%	76	-	-
0043-078-8000-1000-4230 - Medical Insurance	\$ 4,405	Customer	100.00%	0.00%	0.00%	100.00%	4,405	-	-
0043-078-8000-1000-4234 - Disability Insurance	\$ 149	Customer	100.00%	0.00%	0.00%	100.00%	149	-	-
0043-078-8000-1000-4238 - Veba Funding	\$ 4,765	Customer	100.00%	0.00%	0.00%	100.00%	4,765	-	-
0043-078-8000-1000-4240 - Workers Comp	\$ 67	Customer	100.00%	0.00%	0.00%	100.00%	67	-	-
0043-078-8000-1000-4250 - Social Security-Employer	\$ 1,825	Customer	100.00%	0.00%	0.00%	100.00%	1,825	-	-
0043-078-8000-1000-4259 - Retirement Contribution	\$ 5,511	Customer	100.00%	0.00%	0.00%	100.00%	5,511	-	-
0043-078-8000-1000-4270 - Dental Insurance	\$ 338	Customer	100.00%	0.00%	0.00%	100.00%	338	-	-
0043-078-8000-1000-4280 - Optical Insurance	\$ 40	Customer	100.00%	0.00%	0.00%	100.00%	40	-	-
0043-078-8000-1000-4440 - Unemployment Compensat	\$ 68	Customer	100.00%	0.00%	0.00%	100.00%	68	-	-
	\$ 500,000	Indirect	4.64%	25.63%	69.73%	100.00%	23,219	128,151	348,630
	\$ 1,696,680	Indirect	4.64%	25.63%	69.73%	100.00%	78,789	434,864	1,183,027
Projects Funded with Cash	\$ 3,867,883	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,039,627	2,828,257
Debt Service		Indirect (C & T)	0.00%	26.88%	73.12%	100.00%			
2013 Series Refunding		Indirect (C & T)	0.00%	26.88%	73.12%	100.00%			
Principal	\$ 1,890,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	508,002	1,381,998
Interest	\$ 324,338	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	87,177	237,161
3010-01	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 65,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	17,471	47,529
Interest	\$ 19,876	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	5,342	14,534
3010-02	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 65,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	17,471	47,529
Interest	\$ 21,750	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	5,846	15,904
3010-03	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 60,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	16,127	43,873
Interest	\$ 25,494	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	6,852	18,642
3010-04	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 35,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	9,407	25,593
Interest	\$ 16,918	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	4,547	12,370
3002-01	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 4,788	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,287	3,501

Schedule 2. Allocation of Expenses to Functions

Agency	Test Year COS		Customer	Collection	Treatment	Total	Customer	Collection	Treatment
		Allocation Method	% Allocation	% Allocation	% Allocation	% Allocation	\$ Allocation	\$ Allocation	\$ Allocation
							<b>723,082</b>	<b>7,662,104</b>	<b>20,844,405</b>
3002-02	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 5,515	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,482	4,033
3002-03	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 6,336	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	1,703	4,633
3002-04	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 50,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	13,439	36,561
Interest	\$ 7,637	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	2,053	5,584
3002-05	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 45,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	12,095	32,905
Interest	\$ 12,625	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	3,393	9,232
WWTP/SRF-PHASE I	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 1,415,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	380,330	1,034,670
Interest	\$ 12,625	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	3,393	9,232
WWTP/SRF-PHASE II	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 3,010,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	809,041	2,200,959
Interest	\$ 1,436,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	385,974	1,050,026
Series 2016, Refunding	\$ -	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	-	-
Principal	\$ 405,000	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	108,858	296,142
Interest	\$ 388,781	Indirect (C & T)	0.00%	26.88%	73.12%	100.00%	-	104,498	284,283
<b>TOTAL EXPENDITURES</b>	<b>\$ 29,229,592</b>						<b>\$ 723,082</b>	<b>\$ 7,662,104</b>	<b>\$ 20,844,405</b>
% Allocation							2.47%	26.21%	71.31%
Expenses Excluded From Indirect Allocation									
Indirect							\$ 119,436	\$ 659,211	\$ 1,793,354
Indirect (C & T)							\$ -	\$ 3,671,150	\$ 9,987,196
Net Expenses for Indirect Allocation							603,646	3,331,743	9,063,855
% of Expenditures							Basis of Indirect Allocations -> 4.64%	25.63%	69.73%

**Wastewater System FY 2018 Allocation of Other Revenues**

Type	Budget	Residential % Allocation	Multifamily % Allocation	Non-Residential % Allocation	Total % Allocation	Residential \$ Allocation	Multifamily \$ Allocation	Non-Residential \$ Allocation
Capital Recovery Charge	216,265	84.19%	3.94%	11.88%	100.0%	2,041,106	525,486	3,148,664
Forfeited Discounts	-	84.19%	3.94%	11.88%	100.0%	182,065	8,511	25,689
Investment Income	25,000	84.19%	3.94%	11.88%	100.0%	-	-	-
Sewer Tap Permits	20,000	84.19%	3.94%	11.88%	100.0%	21,047	984	2,970
Merch & Jobbing-Field	3,000	84.19%	3.94%	11.88%	100.0%	16,837	787	2,376
Miscellaneous	1,500	84.19%	3.94%	11.88%	100.0%	2,526	118	356
Merch & Jobbing-Field	1,050	84.19%	3.94%	11.88%	100.0%	1,263	59	178
Sale for Resale	3,748,441	32.65%	9.37%	56.70%	98.7%	884	41	125
Use of Reserves	1,700,000	33.93%	9.37%	56.70%	100.0%	1,239,734	355,717	2,152,990
<b>Total Other Revenues</b>	<b>\$ 5,715,256</b>					<b>\$ 2,041,106</b>	<b>\$ 525,486</b>	<b>\$ 3,148,664</b>

Schedule 4. Sewer Revenue Requirement Allocations

Revenue Requirements	Total	Residential	Multifamily	Non-Residential
Customer	\$ 723,082	\$ 608,735	\$ 28,456	\$ 85,891
Collection	\$ 7,662,104	\$ 2,501,805	\$ 728,403	\$ 4,431,896
Treatment	\$ 20,844,405	\$ 6,806,047	\$ 1,981,587	\$ 12,056,771
Total Revenue Requirements	\$ 29,229,592	\$ 9,916,588	\$ 2,738,446	\$ 16,574,558
Less: Other Revenue	\$ 5,715,256	\$ 2,041,106	\$ 525,486	\$ 3,148,664
<b>Rate Requirement</b>	<b>\$ 23,514,336</b>	<b>\$ 7,875,482</b>	<b>\$ 2,212,960</b>	<b>\$ 13,425,894</b>
Annual Wastewater Sales (CCF)	4,715,735	1,539,766	448,304	2,727,664
<b>Rate Rev. Req./ (CCF)</b>	<b>\$ 4.986</b>	<b>\$ 5.115</b>	<b>\$ 4.936</b>	<b>\$ 4.922</b>
<b>Rate Rev. Req. /Customer</b>	<b>\$ 3,230</b>	<b>\$ 1,285</b>	<b>\$ 361</b>	<b>\$ 15,526</b>

