ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

AGENDA
SPECIAL MEETING OF THE OWASA BOARD OF DIRECTORS
THURSDAY, JANUARY 21, 2016, 6:00 P.M.
OWASA BOARD ROOM

A Special Meeting of the Board of Directors of Orange Water and Sewer Authority is hereby called and will be held on Thursday, January 21, 2016, at 6:00 PM, in the OWASA Board Room, 400 Jones Ferry Road, Carrboro, N.C., for the purpose of considering and taking official action upon the following matters and such other business as may appropriately come before the Board.

In compliance with the "Americans with Disabilities Act," interpreter services are available with five days prior notice. If you need this assistance, please contact the Clerk to the Board at 919-537-4217 or aorbich@owasa.org.

The Board of Directors appreciates and invites the public to attend and observe its meetings. For this Special Meeting, public comments are invited on only items appearing on this agenda. Speakers are invited to submit more detailed comments via written materials, ideally submitted at least three days in advance of the meeting to the Clerk to the Board via email or US Postal Service (aorbich@owasa.org/400 Jones Ferry Road, Carrboro, NC 27510).

Public speakers are encouraged to organize their remarks for delivery within a four minute time frame allowed each speaker. Additional time may be allowed at the discretion of the Board of Directors.

Announcements

a. Announcements by the Chair
   - Any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time.

REGULAR AGENDA

Discussion

1. Discussion of Cost Allocation Study (Stephen Winters/Andrew Burnham, Burton and Associates)
2. (If Needed – No Materials Provided) Discussion of Community Engagement for Advanced Metering Infrastructure (Todd Taylor)

Dated this 21st day of January 2016.

\s\ John A. Young
John A. Young, Chair of the Board

AGENDA ITEM

- DISCUSSION OF COST ALLOCATION STUDY

BACKGROUND

- The Board of Directors is considering making modifications to OWASA's rate structure to ensure that rate-setting objectives continue to be met.

- The process began with a Cost Allocation Study, the results of which were discussed at the December 10, 2015 Board Meeting. The Board requested additional information about the Cost Allocation Study and called for a Board work session to continue the discussion.

- The purpose of the meeting is to determine the Board's preferences for grouping customers into rate classes, determining which alternative rate structures are to be considered for analyzing and modeling, and identifying the alternative rate structures to analyze and model for each of the rate classes determined.

- Once customer rate classes have been defined and rate structures to model for each class is determined, we will be able to analyze the alternatives to determine their impact on various customer classes.

ACTION NEEDED

- Determine the customer rate classes
- Determine which alternative rate structures are to be considered
- Identify the rate structures to model for each of the rate classes determined
- Or identify additional information necessary for making these decisions.

January 21, 2016

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Stephen Winters, CPA

DATE: January 15, 2016

SUBJECT: Discussion of Cost Allocation Study

Background

The Board of Directors is considering making modifications to OWASA's rate structure to ensure that OWASA's rate-setting objectives are met. The process began with a Cost Allocation Study, the results of which were discussed at the December 10, 2015 Board Meeting. The Board requested additional information about the Cost Allocation Study and called for a special Board work session to continue the discussion.

Key Finding of Cost Allocation Study

The allocation of costs across our customer rate classes is reasonable and within industry norms. There is justification for recovery of a greater portion of our fixed costs from our fixed monthly charges for both water and sewer service.

Purpose of Work Session

Three proposed goals for the Board's discussion are to:

1. Determine the customer rate classes (general service, multi-family residential, etc.)
2. Determine which alternative rate structures are to be considered
3. Identify the alternative rate structures to model for each of the rate classes determined

Two technical memoranda are attached that address the Board's request for additional information from December 10; one about the approach used to develop the initial proposed rate classes and one about how maximum-day and peak-hour demand factors were determined for our customer classes.

It is important for the Board to come to agreement on the desired rate classes prior moving on to the selection of rate structure alternatives to model. The appropriateness of certain types of rate structures to consider often depends on the specific rate class.

Summary of the attached Technical Memorandum: Discussion of Rate Class Determination

Attachment 1 is a Technical Memorandum containing information the Board requested about how the potential rate classes in the Cost Allocation Study were determined. Key points from the rate class memo include:

- The rate classes presented at the December 10 meeting were intended to be a starting point for discussion; the Board has broad discretion with respect to these matters.
- The Cost Allocation Study led to an initial grouping of our customers into four rate classes:
    - Single-family, individually-metered residential
    - Multi-family, master-metered residential
    - General Service
    - Irrigation
- Multi-family, master-metered residential customers were initially placed in a category separate from single-family, individually-metered residential customers due to differences in demand characteristics.
- The general service rate class includes customers with a wide variety of demand characteristics with no definitive grouping of customers within the class that clearly indicates separating it into another rate class.
- UNC was initially included in the general service rate class based on its wide range of property-types. However, a reasonable alternative would be to place UNC in its own separate rate class since it could be considered that all of the different types of accounts support UNC's operation as a whole.
- Based on demand patterns, UNC Student Housing was initially placed in the general service class. But it would also be reasonable to place UNC Student Housing in the multi-family, master metered class based on end-use of water.
- The Board could consider subdividing the general service rate class. Because there is little end-use consistency in the class, it would be more appropriate to subdivide based on demand patterns. However, some of UNC's locations could potentially pay different rates and customers could fall into different rate classes from year-to-year based on annual fluctuations in peaking factors.
- Once rate classes are determined, the next step is to identify the rate structures (seasonal, increasing block, uniform, etc.) that are to be analyzed for each rate class. This will include analyzing how customers within each rate class would be affected under each alternative structure.

Summary of the attached Technical Memorandum: Development of Peaking Factors by Class

Attachment 2 is a Technical Memorandum containing information the Board requested about how the daily and hourly peaking factors were determined for our customer classes.

As you know, we meter customers' water use monthly so we do not have a way to determine a customer's individual daily or hourly water-use peaks. However, we are able to identify system-wide daily and hourly peaks. The American Water Works Association (AWWA) has issued guidelines that outline an accepted industry approach to estimating this information on a per customer-type basis. Burton & Associates applied this guidance in performing our Cost Allocation Study.

Determining Rate Classes

The guidance we request from the Board is to determine the rate classes we will use. As mentioned, the

Cost Allocation Study initially identified four potential rate classes. At the December 10 meeting, the Board had questions and suggestions about alternative rate class groupings. The attached Table 1 shows the following:

- The initial rate classes from the Cost Allocation Study
- The initial rate classes with the General Service class split between those with a Summer Maximum Month peaking factor of less than 1.5 and those with a factor of more than 1.5
- The initial rate classes with UNC shown as its own rate class

Staff favors the rate classes identified in the Cost Allocation Study report. A few of the reasons are listed below:

- Single-family, individually-metered residential – This class continues to exhibit relatively high peaking demands and seasonal demand patters.
- Multi-family, master-metered residential – Although this class consists of residential customers, most of the use within this class is related to indoor use; it exhibits much more stable demand patterns and low peak demands.
- Irrigation – This class of about 125 customers has clear and unique demand patterns.
- General Service – This class of about 1,400 non-residential customers has very little end-use consistency and a variety of different demand patterns. Subdividing it based on end-use would result in numerous, small rate classes. If it is subdivided based on demand patterns, some of UNC's accounts would potentially pay different rates and a customer's classification could change from year-to-year due to fluctuations in peaking characteristics.

As pointed out, the Board has discretion in determining rate classes. However, in order to minimize customer confusion and administrative complexity, it is advisable to limit the number of rate classes.

Determining Rate Structures to be Considered

We currently utilize three rate structures to bill customers: inclining block rates for single-family, individually metered residences, uniform for irrigation, and seasonal for all others.

There are many different types of rate structures to consider and each addresses different rate-making objectives to varying degrees. We have included Table 2 which compares the degree to which several different rate structure alternatives address different rate-making objectives. The information can be used to help the Board decide on the types of rate structure alternatives it wants analyzed.

Selecting Rate Structures to Model for the Proposed Rate Classes

The guidance we need from the Board is to determine which alternative rate structures should be modeled for the identified rate classes.

Staff believes our current rate structure does a good job of balancing rate-making objectives. A few reasons include:

- Financial stability – annual water sales have been very stable over the last several years which has helped us avoid rate increases for four consecutive years.
- Conservation – the community is using about the same amount of drinking water it used in 1991 even though the number of customers we serve has increased by over 60%.

- Cost of service – the Cost Allocation Study shows that our current system continues to meet cost of service principles.
- Customer understanding and administrative complexity – customers seem to understand the way they are billed for services and it is not overly difficult to administer.
- Affordability – options to address affordability through rate structures are limited. Potentially, we could make small adjustments to elements of our current structure that may enhance affordability (such as changing the amount of fixed service charges or aspects of the inclining blocks). But overall, our Affordability measurement is 1.4: better than our goal of 1.5.

One area that staff believes needs to be addressed is how we charge multi-family, master-metered customers. Under the current seasonal rate structure, multi-family, master-metered customers are charged a higher water commodity rate from May through September and a lower rate from October through April. Many multi-family, master-metered customers have installed private sub-metering systems and re-bill residents based on the resident's individual water use. As a result, the residents' water bills increase in the summer months even though their monthly volume of water use has not changed. For this reason, staff would like to analyze a uniform rate approach for multi-family, master-metered customers.

The following table shows examples of potential rate classes and potential alternative rate structures to model for each.

Rate Structure Alternatives to Model for Each Rate Class

	Initial Rate Classes per Cost Allocation Study				**Additional Potential Rate Classes**		
	General Service	**Single-family, individually-metered residential**	**Multi-family, master-metered residential**	**Irrigation**	**UNC from Gen Svcs to its own Separate Class**	**General Services split at Peaking Factor of 1.5**	**Additional rate class alterna-tive(s)?**
Current structure	- Seasonal	- Increasing block	- Seasonal	- Uniform			
Potential rate structures to model	- Seasonal - Uniform - Budget	- Increasing block - Seasonal - Uniform - Budget	- Seasonal - Uniform - Increasing block - Budget	- Uniform - Budget	- Seasonal - Uniform - Budget	- Seasonal - Uniform - Budget	To be determined
Staff's preference of rate structures to model	- Seasonal - Uniform	- Increasing block	Uniform	Uniform	- Seasonal - Uniform	- Seasonal - Uniform	

To inform the modeling, evaluation, and customer impact assessment of the various alternatives, we must also consider the appropriate level of fixed monthly charges for water and sewer services; therefore, we will also request Board guidance regarding those assumptions. In the last round of rate modeling done a few years, the Board's general guidance for most all scenarios evaluated was that fixed monthly charges should be set to provide 20% of the total operating revenue from our recurring monthly charges.

Rate Structure Definitions

- Seasonal – higher commodity rate during the peak-use months, lower rate during the cooler months.
- Uniform – flat, year-round commodity rate.
- Increasing block – commodity rate increases as water use increases.
- Budget – rates are based on the customer's typical usage pattern, higher rates apply to use that exceeds the customer's allotted use.
- Each of these structures typically has a fixed charge and a commodity charge component.

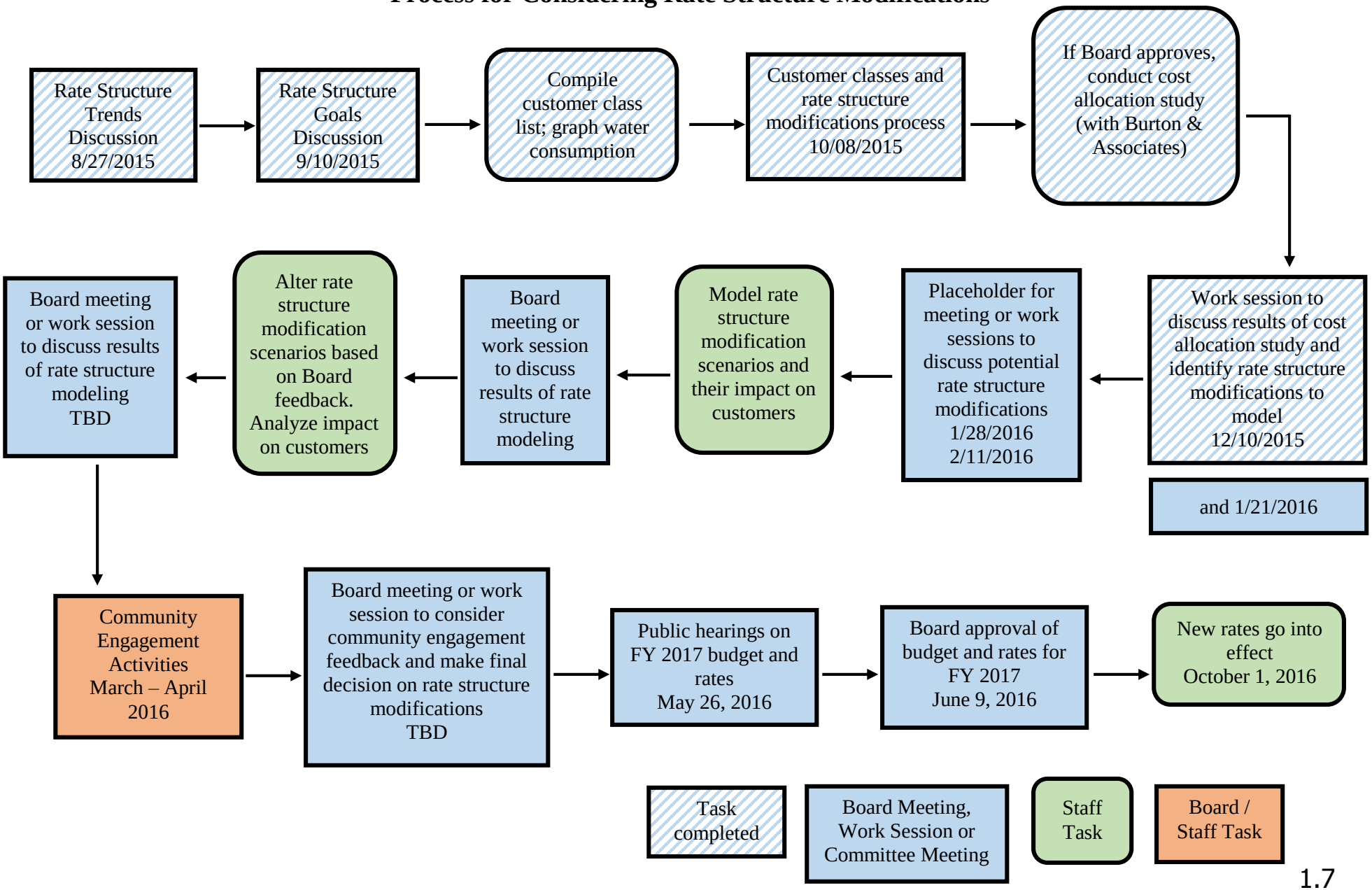
Within each rate structure selected to model, there will be additional decisions to make regarding the amount of fixed service charges, the commodity rates, the number of gallons in the increasing blocks, etc.

At the January 21 meeting, we hope to be able to assist the Board in deciding on the rate classes it prefers and the rate structures to model and analyze for each of them.

Timeline of Process

The following page shows the steps of the process and our progress along the timeline. This is an updated version of the chart you reviewed at your October 8, 2015 meeting at the beginning of this project.

Process for Considering Rate Structure Modifications



Action Requested

- Determine the customer rate classes
- Determine which alternative rate structures are to be considered
- Identify the rate structures to model for each of the rate classes determined
- Or identify additional information necessary for making these decisions

Information Attached

- **Attachment 1** – Technical Memorandum: Discussion of Rate Class Determination
- **Attachment 2** – Technical Memorandum: Development of Peaking Factors by Class
- **Table 1** – shows three options for setting rate classes
    - The initial rate classes from the Cost Allocation Study
    - The initial rate classes with the General Service class split between those with a Summer Maximum Month peaking factor of less than 1.5 and those with a factor of more than 1.5
    - The initial rate classes with all UNC accounts shown as its own rate class
- **Table 2 –** Comparison of General Options for Monthly Service and Commodity Charge Rate Structures



Stephen Winters, CPA
Director of Finance and Customer Service

Attachments

1. Technical Memorandum – Discussion of Rate Class Determination
2. Technical Memorandum – Development of Peaking Factors by Class
3. Table 1 – Some Potential Options for Grouping OWASA Customers into General Rate Classes
4. Table 2 – Relative Comparison of General Options for Monthly Service and Commodity Charge Rate Structures
5. Technical Memorandum – Cost of Service Analysis Summary
6. Cost of Service Allocation Model

BURTON & ASSOCIATES
UTILITY RATES ▪ ASSESSMENTS ▪ FINANCIAL PLANNING

TECHNICAL MEMORANDUM

Burton & Associates
1000 N. Ashley Dr. Suite 513
Tampa, FL 33602
Telephone: (813)-443-5138

DATE: January 11, 2015
TO: Stephen Winters, Director of Finance & Customer Service, OWASA
FROM: Andrew Burnham, Director, Burton & Associates
RE: DISCUSSION OF RATE CLASS DETERMINATION

On December 10, 2015, OWASA's Board of Directors received and discussed a report of the cost of service analysis conducted by Burton & Associates (B&A). One of the Board's requests was for additional information about the process that was used to develop the potential rate classes that were presented. The Board also expressed interest in considering alternatives to the initial rate classes identified in the report.

The purpose of the following information is to provide background on the process used to determine the initial recommended rate classes as presented to the Board on December 10, as well as alternative rate classes for consideration.

It is important to note that there is no single method for determining cost of service allocations, establishing different rate classes, or deciding on rate structures and applicability to the various rate classes. The approach presented at the December 10 meeting was a starting point for discussion; the Board of Directors has broad discretionary authority with respect to all of these matters.

Distinction between Cost of Service and Rate Design

There is often confusion about the difference between Cost of Service (the cost allocation study) and Rate Structure Design in the rate study process. The steps are related but the purposes for each are quite different.

- Cost of Service – analysis is intended to determine the cost of providing water and sewer service to each defined rate class. It allocates costs between identified rate classes and identifies how much of the utility's annual revenue requirement each rate class should contribute.
- Rate Design – allocation of costs and revenue requirements are then used in the rate structure design analysis, whereby a rate structure is established for each rate class.

While it may be determined that two rate classes should have the same rate structure, the level (cost per unit of service received) of rates for each rate class would be established based upon the unique allocation of costs and service demands of each class. In other words, it may be determined that general service and irrigation should both have the same type of commodity charge but the rate of the commodity charge could be different due to a difference in the cost of providing service.

The Board's next step would be to identify the rate structures (seasonal, increasing block, uniform, etc.) that are to be analyzed for each customer rate class. The analysis will include how customers within each rate class would be affected under each alternative structure.

Cost of Service Analysis

As described above, a cost of service analysis provides information about the costs and revenue requirements related to serving different customer rate classes.

It is customary to group customers into rate classes based on similarities in water-use characteristics so that the cost of service can be reasonably determined for each rate class.

In developing the initial rate classifications for OWASA, consistent with water utility industry guidance for cost allocation and rate design studies, B&A considered:

- Service characteristics – type of customer based on the end-use of the water on the property
- Demand patterns – seasonal and coincident peak use (e.g. each class's relative share of the system's peak demands)
- Knowledge about OWASA's system
- Industry experience with other utility systems

It is important to note that the criteria used are not all-inclusive nor are they always given the same weighting. Utility systems should include these and any other relevant unique considerations as part of its decision-making process in establishing rate classes.

It is also important to note that since OWASA bills on a monthly basis and measures water use in 1,000 gallon units, there is limited data upon which to base maximum-day and peak-hour cost of service allocations to the various customer classes.

Service Characteristics

Based on a review of the customers served by OWASA, B&A initially determined that one approach would be to group customers into three general categories based on type of water use:

- Residential (including master-metered, multi-family)
- General service (e.g. commercial or non-residential)
- Irrigation

The groupings are consistent with the rate classes used by utilities similar to OWASA. While residential and irrigation water use can be fairly narrowly defined, the general service category includes a wide variety of types of water use. There is potential to further subdivide these initial groupings, if that is determined necessary and supported by the technical analysis.

Demand patterns

Once the initial three rate classes were developed, the demand patterns associated with the rate classes were examined to determine if initial groupings should be subdivided.

Single-family versus Multi-family Residential

Demand patterns within the residential rate class clearly show that residential customers with individually-metered connections place different demands on the water system than master-metered residences. The individually-metered residences have higher peaking demands and seasonal demand patterns.

Due to the differences in demand characteristics the initial residential grouping was subdivided into single-family residential (individually-metered connections, including duplexes, townhomes, etc.) and multi-family residential (master-metered connections).

General Services

A review of the demand patterns within the general service rate class shows a wide variety of demand characteristics. However, there is no definitive grouping of customers within this class that clearly indicates separating it into another rate class. For this reason, the general service rate class was not subdivided initially.

Industry Experience

B&A's analysis was influenced by their industry experience including practical considerations. From a technical perspective the ideal cost of service analysis would result in separate rates for each individual customer. Obviously, this is not practical and would result in individual customers with the same type of property-use having different rates. Also, increasing the number of general service rate classes would increase the complexity of communicating with customers (e.g. why do I fall into this class when a similar business falls into another class), and the overall complexity of implementing and administering the system of rates and fees.

If general service rate classes are subdivided it would be possible for larger customers, like the University of North Carolina (UNC), to be charged different rates for multiple accounts based on the end-use of the accounts. B&A's industry experience has shown that unless there are clear and definitive differences in the cost of service between various groups of customers, using fewer and more general rate classes is the preferred approach. As such, unless there are specific classes of customers that are clearly disadvantaged by the current rate classes, communities will often avoid creating additional complexity.

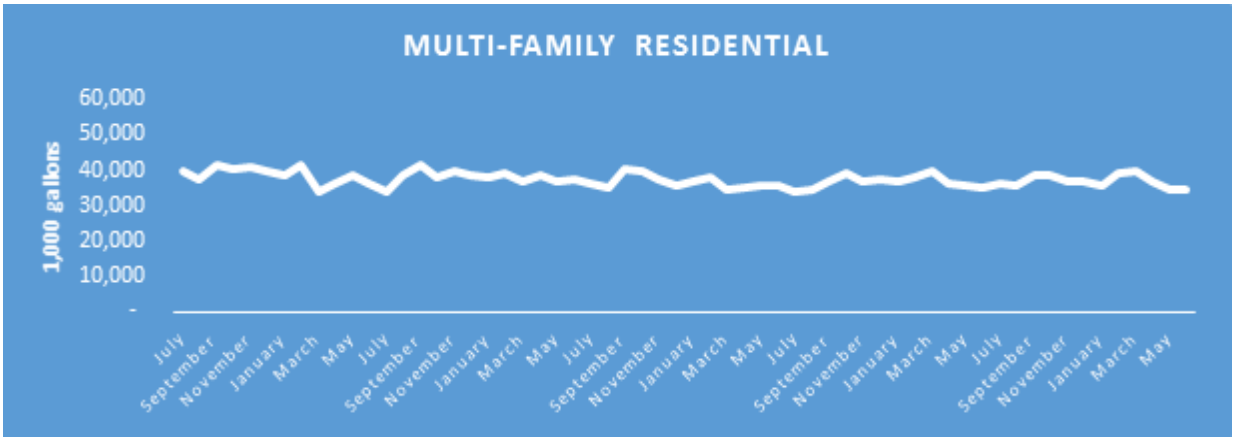
Based on the Board's feedback regarding the four initial recommended rate classes presented on December 10, 2015, B&A evaluated additional alternatives. The rest of this memo is devoted to these alternatives, as well as providing clarity between cost of service and rate design elements of the rate study process.

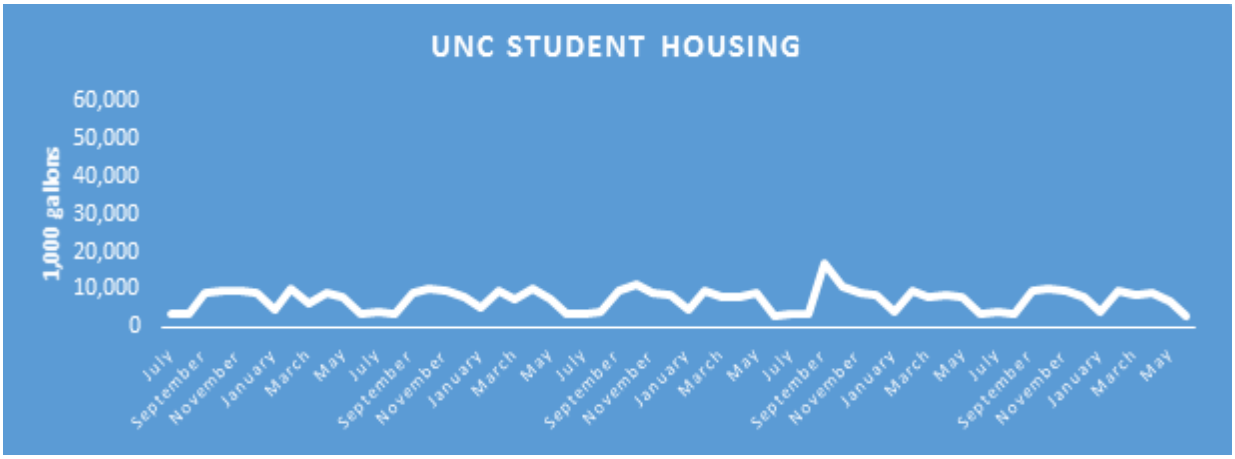
UNC Student Housing

When UNC Student Housing is considered solely from an end-use of water perspective, it is logical to be considered a residential user of water and included in the multi-family residential rate class.

However, demand characteristics demonstrate unique seasonal demand patterns and higher peaking factors that result in a definitive difference in the cost of providing service as compared to traditional master-metered residential customers. The charts below compare water use over the past five years for UNC Student Housing to the other master-metered residential customers.

There are sizable peak demands routinely placed on the system by UNC Student Housing during the month of September that are coincident with and contribute to the overall system peak demands. Conversely, the demand-profile for master-metered multi-family, master-metered residential customers is very stable and does not place large peak demands on the system.





In addition to seasonal demand variations, the maximum-month peaking factors for UNC Student Housing are significantly different from the peaking factors of master-metered, multi-family residential customers. The following table shows the average non-coincident and coincident (summer) maximum-month peaking factors observed over the last five years.

	Five Year Average Maximum Month	
Customer Class	**Noncoincident Peak**	**Coincident Peak**
UNC Student Housing	1.45	1.28
Multi-Family Residence-Master Metered	1.09	1.13
Multi-Family Residence-Master Metered-Public Housing	1.17	1.13

Based on demand patterns of UNC Student Housing, it was determined that the general service class was more appropriate than the multi-family residential rate class. However, it would also be reasonable to place UNC Student Housing within the multi-family, master-metered residential rate class based upon the end-use of water for these accounts being consistent. This apparent contradiction is an example of the Board's discretion in these matters.

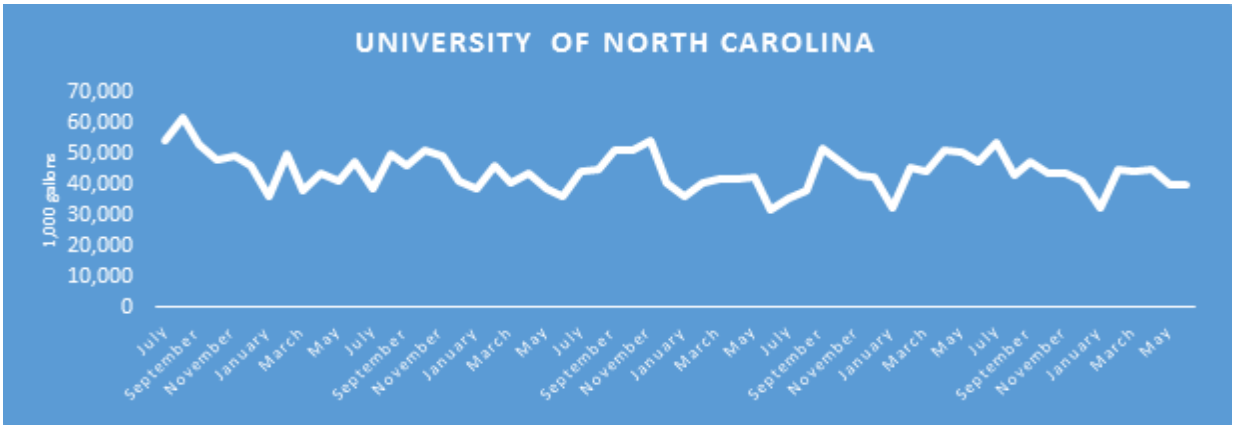
University of North Carolina

UNC consists of a wide range of properties. Based on the wide range in type of water use, all UNC customer classes (including UNC Health Care) were initially placed in the general service rate class.

The following table is a summary of the seven UNC customer classes and the demand patterns for each respective class.

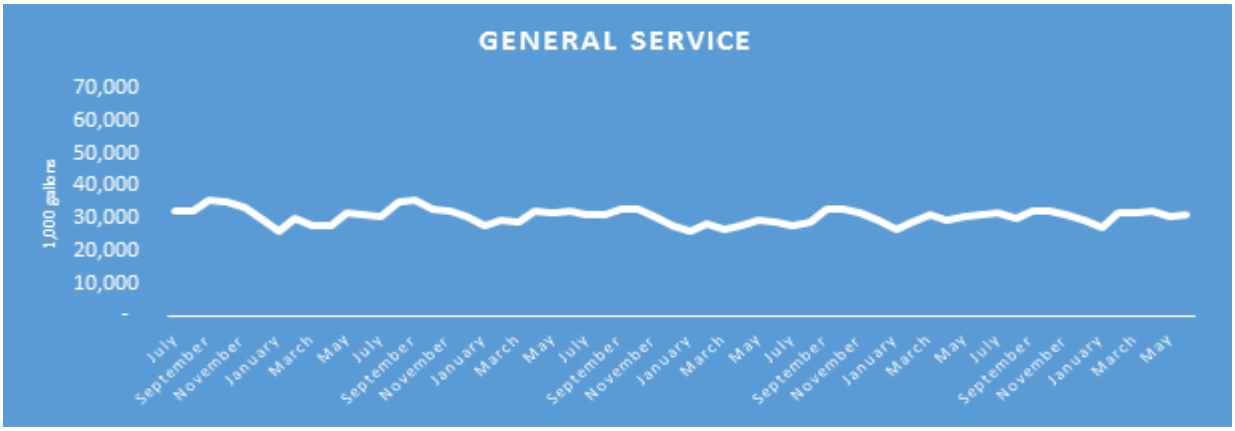
	Five Year Average Maximum Month		Annual Volume
Customer Class	Noncoincident Peak	Coincident Peak	(1,000 gallons)
UNC Laboratory-Research Facility	1.20	1.07	85,213
UNC Classroom-Faculty Offices	1.22	1.12	80,392
UNC Other	1.30	1.14	52,175
UNC Hospitals-Patient Care	1.17	1.16	102,529
UNC Office-Administration	1.28	1.27	7,024
UNC Student Housing	1.45	1.28	88,899
UNC Heating-Cooling	2.14	2.03	116,304

While the initial determination to include UNC accounts within the general service rate class was based on cost of service drivers, some communities have an institutional or otherwise separate rate class for customers like UNC. The following shows the five-year usage patterns for the combined composite UNC rate class.



Due to the diversity of the types of end-uses of UNC's accounts, there are significant monthly variations in water demand for UNC as a whole.

For comparison, the general service rate class excluding UNC accounts is shown in the following chart.



The initial determination to include UNC accounts within the general service rate class was based on cost of service drivers. However, it would also be reasonable to consider UNC as a separate rate class considering that all the different types of accounts support the operation of the University as a whole. Relative to accepted industry practices, B&A has seen both approaches used by communities around the country with similar customer class characteristics as those of OWASA.

Consideration of Subdividing the General Service Rate Class

The general service rate class includes a range of non-residential properties that have different demand patterns. Subdividing the rate class could be based on consistency in the type of use within the rate class and/or consistency within demand patterns.

Type of Use

There is little end-use consistency within the class. It would be possible to combine some of the customer classes into very small rate classes but it would be difficult to manage this many rate classes and it would likely be confusing to customers.

Demand Patterns

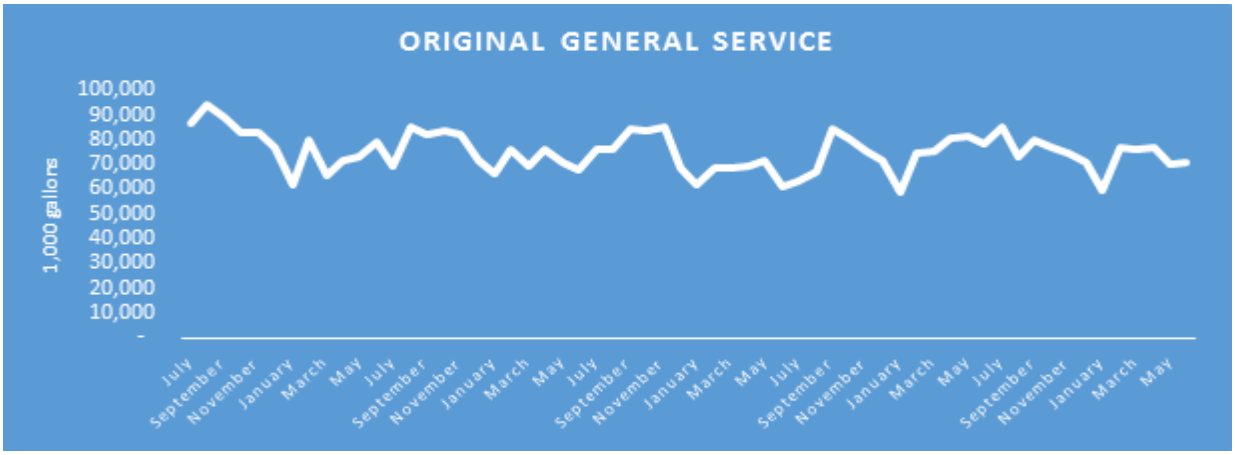
B&A believes it would be possible to consider subdividing the general service rate class based on demand patterns. The following table, which lists customer classes in ascending order of the summer maximum-month peaking factor, indicates there is a fairly clear peaking factor breakpoint at 1.50 that could be used to establish a separate general service class that exhibits high peak demands coincident with the overall system peak demands.

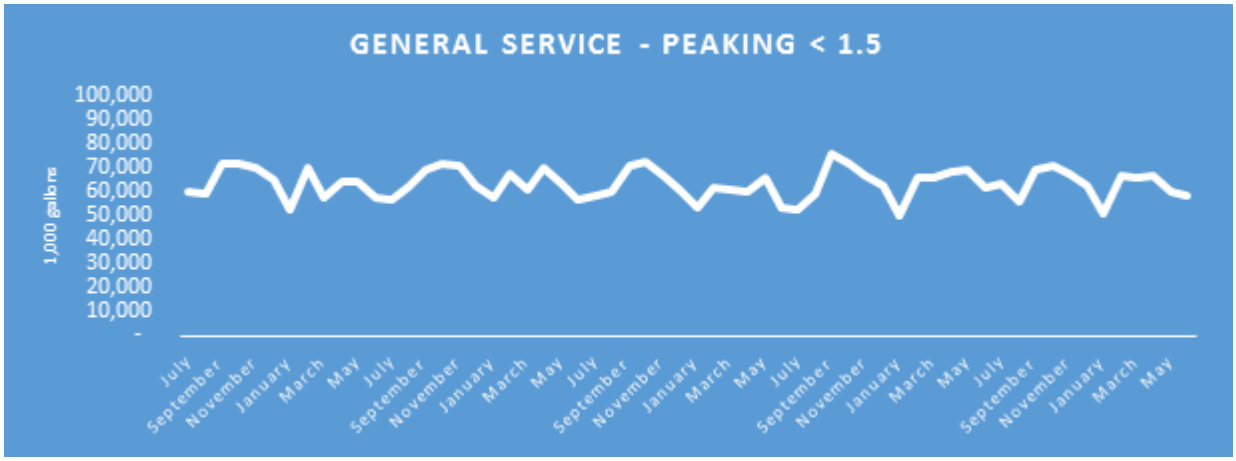
Customer Class	Max Month Peaking	Summer Max Month Peaking	Annual Volume (1,000 gallons)	Approximate Number of Customers
Restaurants	1.06	1.04	28,167	83
Laundromats	1.10	1.06	4,260	7
UNC Laboratory-Research Facility	1.20	1.07	85,213	28
Nursing Homes	1.12	1.07	11,580	8
Office-Retail-Commercial-Banks	1.11	1.10	128,844	583
Non-UNC Hospital-Medical Research-Health Care	1.18	1.11	31,748	34
Gas Service Stations	1.15	1.12	2,053	25
UNC Classroom-Faculty Offices	1.22	1.12	80,392	78
Utilities	1.32	1.14	10,767	27
UNC Other	1.30	1.14	52,175	71
Fire Protection-Non-UNC fire lines	1.28	1.15	466	4
UNC Hospitals-Patient Care	1.17	1.16	102,529	21
Non-UNC Irrigation	1.30	1.17	3,724	12
Non-UNC Schools-Churches	1.28	1.19	37,192	100
Private non-UNC dormitory or group homes	1.36	1.21	41,164	50
Hotel-Motel-Inn-Commercial Guest Quarters	1.21	1.21	33,995	12
UNC Office-Administration	1.28	1.27	7,024	27
Municipality-Government Operations	1.40	1.28	6,494	31
UNC Student Housing	1.45	1.28	88,899	90
Other	1.38	1.39	7,775	20
Non-UNC Recreation Facilities	1.61	1.57	17,175	42
Car Washes	1.92	1.81	1,171	4
UNC Heating-Cooling	2.14	2.03	116,304	17
Swimming Pools	2.25	2.25	2,530	13
Bulk Waste Water Service	4.99	2.43	65	2

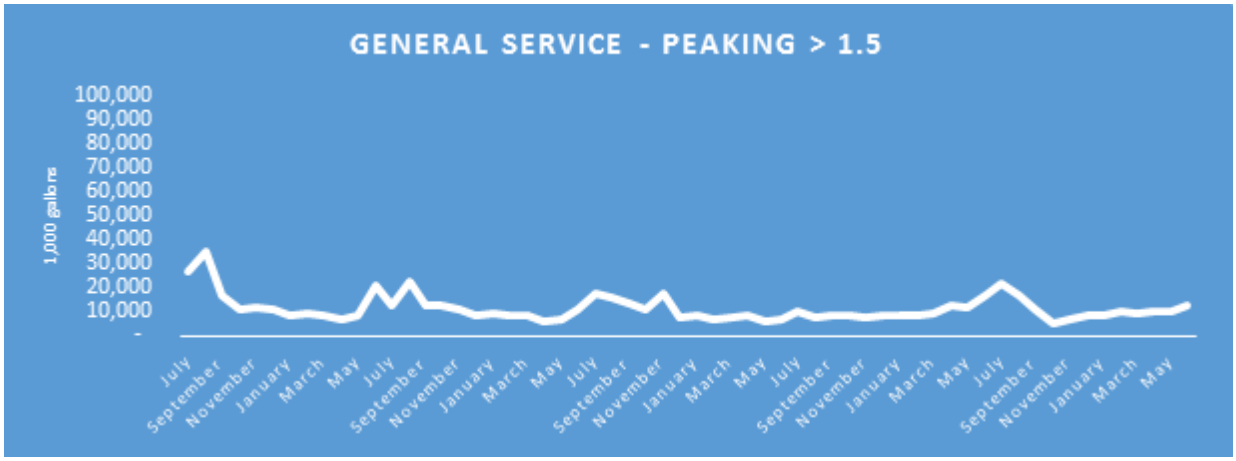
If the general service rate class is subdivided based on peaking factors, some of UNC's accounts would potentially pay different rates depending on the nature of the account (e.g. UNC Heating-Cooling). While this approach would be consistent with cost of service principles, it could complicate customer communications.

Additionally, the development of a rate class based solely on peaking factors can be difficult to administer. If a specific customer class demonstrates annual variations in peaking, the class could fluctuate between rate classes from year to year. It is important to carefully consider the implications of subdividing the general service rate class.

The following charts show the usage patterns for the general service rate class assuming a subdivision at a peaking factor of 1.50. The first figure presents the usage patterns for the general service rate class prior to subdividing the class.







The general service rate class with a peaking factor of 1.5 or greater typically demonstrates pronounced seasonal peaking; however, as a whole, this class represents a relatively small portion of the total system demand. The general service rate class with a peaking factor of 1.5 or less also tends to have peak demands during the month of September, as this group includes UNC Student Housing.

If the Board establishes a separate rate class for UNC, the usage profile of the remaining general service accounts is such that B&A would not recommend establishing multiple general service rate classes on the basis of peak demand differentials.

BURTON & ASSOCIATES
UTILITY RATES ▪ ASSESSMENTS ▪ FINANCIAL PLANNING

TECHNICAL MEMORANDUM

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DATE: January 11, 2015
TO: Stephen Winters, Director of Finance & Customer Service, OWASA
FROM: Andrew Burnham, Director, Burton & Associates
RE: DEVELOPMENT OF PEAKING FACTORS BY CLASS

On December 10, 2015, representatives from Burton & Associates presented the initial results of a cost of service analysis to the OWASA Board of Directors. One of the Board's requests was for additional information about the maximum-day and maximum-hour peaking factors used in cost of service analysis. This technical memorandum explains the approach used to develop the maximum-day and maximum-hour peaking factors and demands and summarizes our approach for aggregating the various customer classes into rate classes.

A key factor in developing cost of service allocations for a water system is the demands placed on the water system. Burton & Associates followed industry guidelines promulgated by the American Water Works Association (AWWA) which require identifying maximum-day and peak-hour demand factors by rate class[1].

Determining peaking factors by class is often a significant challenge due to the limited availability of daily and hourly usage data. OWASA, like most utilities, measures and bills customers water use on a monthly basis, so it does not have specific maximum-day and peak-hour usage data for its customer classes.

Due to the data limitations, industry standard techniques have been developed to determine peaking factors by class for use in a cost of service analysis. The resulting peaking factors are then tested against the available total system peaking data (maximum-day and maximum-hour for the entire water system) to ensure that the results are within a range of reasonableness.

The AWWA guidance outlines a common approach to developing peaking factors by class for a systems that meter customers on a monthly basis[2].

Maximum-day Peak Demand Factor

The first step is to calculate the maximum-month peaking factor for each class based upon customer billing data. The maximum-month factors for each class are shown in Table 1 at the end of this memorandum. This maximum-month peaking factor represents the minimum maximum-day peaking factor for each customer class.

[1] While often times referred to as "customer classes", the term "rate classes" is used herein to avoid confusion with the 32 detailed categories of customer types referred to as customer classes within the OWASA billing system.
[2] The approach is found in Appendix A of the Sixth Edition of the AWWA M1 Manual.

The next step is to multiply the maximum-month peaking factor for each class times the ratio of the total system maximum-day to maximum-month demand. However, this alone does not provide an accurate representation of how each individual class uses water and creates peak day demands. Water usage fluctuates on a daily basis for many customer classes, and is not evenly distributed over the course of a month or even week. To address these fluctuations, it is common to develop additional daily adjustment factors for each class based on how the specific customer class will generally use water during the course of a week.

For example, a customer class consisting of office space would typically use the majority of its water on business days (only 5 days per week) and therefore a 1.4 daily adjustment factor (7 total days in a week divided by 5 days of assumed water use) would be applied to this customer class.

Similar adjustment factors are developed for each customer class based on a general, but reasonable understanding of the water use profile of each class. Once the daily adjustment factor has been determined, the maximum-day peaking factor for each class is calculated as follows:

Customer class ratio of maximum-month average / average month demand	X	Maximum-day / maximum-month ratio for the entire system	X	Assumed daily usage adjustment factor	=	Maximum-day peak demand factor for the application customer class

The resulting maximum-day peak demand factor for each customer class is then applied to the average monthly demand of each respective class to calculate the maximum-day demand of each customer class (which is then aggregated by rate class for purposes of the cost of service analysis).

Peak-Hour Demand Factor

The development of peak-hour demands for each customer class builds on the calculated maximum-day demands using a similar approach. Once the maximum-day peaking factor has been developed it is possible to estimate the peak-hour demands based upon a reasonable understanding of how water is used during the course of a 24-hour period by each customer class.

Water usage fluctuates on an hourly basis for many customer classes, and is not evenly distributed over the course of a day. To address these fluctuations, it is common to develop hourly adjustment factors for each class based on how the specific customer class will generally use water during the course of a day.

For example, a customer class consisting of car washes would typically use the majority of its water during daylight hours (typically around 12 hours) and therefore a 2.0 hourly adjustment factor (24 hours a day divided by 12 hours of assumed water use) would be applied to this customer class.

Similar adjustment factors are developed for each customer class based on a general, but reasonable understanding of the water use profile of each class. Once the hourly adjustment factor has been developed, the peak-hour demand factor for each class is calculated as follows:



Reasonableness Test

The final step in the development of customer class peaking factors is to test the reasonableness of the results of those factors against observed system data. In accordance with the guidance of the AWWA, this is accomplished by calculating a system diversity ratio.

The system diversity ratio is determined by comparing the total calculated maximum-day demand resulting from the customer class peaking factors (often termed the non-coincident maximum-day demand) with the actual total system maximum-day (often referred to as the coincident maximum-day demand). The ratio of the two maximum-day demands (non-coincident divided by the coincident demand) should fall within a range of 1.1 to 1.4 to be consistent with a reasonable range for a typical water utility.

The same system diversity test is also used to determine the reasonableness of the results of the customer class peak-hour demand factors (non-coincident peak hour demand divided by coincident peak-hour demand). Again, the resulting ratio should fall within a range of 1.1 to 1.4 to be within a zone of reasonableness.

The above approach was used to develop the maximum-day and peak-hour factors for the 32 separate customer classes tracked by OWASA. The current daily and hourly adjustment factors used in the cost of service analysis for each customer class are shown in Table 1. The adjustment factors were developed based on general monthly usage profiles for each customer class and were reviewed with OWASA staff.

Weighted Adjustment Factors

Once the daily and hourly adjustment factors were developed for each customer class, the factors were weighted based upon the amount of annual water use for each class. These weighted factors were used to determine the composite adjustment factors for each of the rate classes currently reflected in the cost of service analysis.

		Weighted by Use		Weighted Adjustment Factor	
Rate Class	Annual Volume (1,000 gallons)	Daily (Days)	Hourly (Hours)	Daily	Hourly
General Service	901,706	6.12	16.86	1.14	1.42
Irrigation	74,143	6.00	16.00	1.17	1.50
Multi-Family Residential	448,784	7.00	16.00	1.00	1.50
Single Family Residential	863,624	6.58	16.00	1.06	1.50

The full calculation of the peaking factors for each of the rate classes is shown on Schedule 9 (attached) of the cost of service workbook. The schedule also presents the system maximum-day and maximum-hour diversity ratios. The system maximum-day diversity ratio is calculated at 1.05, just below the typical range of 1.1. The system peak-hour diversity ratio is calculated at 1.29. These results are very consistent

with the range for typical utility systems as identified by the AWWA. The results are also consistent with our experience with other utility systems.

Table 1 - Customer Class Daily and Hourly Adjustment Factors

OWASA Water Customer Classes		Five Year Averages		Estimated Use		Adjustment Factor	
Customer Class	Potential Class Grouping	Max Month Peaking	Annual Volume (1,000 gallons)	Daily (Days)	Hourly (Hours)	Daily	Hourly
Restaurants	General Service	1.06	28,167	7	16	1.00	1.50
Laundromats	General Service	1.10	4,260	7	24	1.00	1.00
Office-Retail-Commercial-Banks	General Service	1.11	128,844	5	16	1.40	1.50
Nursing Homes	General Service	1.12	11,580	6	14	1.17	1.71
Gas Service Stations	General Service	1.15	2,053	7	24	1.00	1.00
UNC Hospitals-Patient Care	General Service	1.17	102,529	7	14	1.00	1.71
Non-UNC Hospital-Medical Research-Health Care	General Service	1.18	31,748	7	24	1.00	1.00
UNC Laboratory-Research Facility	General Service	1.20	85,213	7	24	1.00	1.00
Hotel-Motel-Inn-Commercial Guest Quarters	General Service	1.21	33,995	7	12	1.00	2.00
UNC Classroom-Faculty Offices	General Service	1.22	80,392	5	12	1.40	2.00
Non-UNC Schools-Churches	General Service	1.28	37,192	5	12	1.40	2.00
UNC Office-Administration	General Service	1.28	7,024	1	8	7.00	3.00
Non-UNC Irrigation	General Service	1.30	3,724	5	12	1.40	2.00
UNC Other	General Service	1.30	52,175	7	16	1.00	1.50
Utilities	General Service	1.32	10,767	2	12	3.50	2.00
Private non-UNC dormitory or group homes	General Service	1.36	41,164	7	12	1.00	2.00
Other	General Service	1.38	7,775	5	12	1.40	2.00
Municipality-Government Operations	General Service	1.40	6,494	7	24	1.00	1.00
UNC Student Housing	General Service	1.45	88,899	6	16	1.17	1.50
Non-UNC Recreation Facilities	General Service	1.61	17,175	5	12	1.40	2.00
Car Washes	General Service	1.92	1,171	7	24	1.00	1.00
UNC Heating-Cooling	General Service	2.14	116,304	5	12	1.40	2.00
Swimming Pools	General Service	2.25	2,530	7	16	1.00	1.50
Bulk Waste Water Service	General Service	4.99	65	7	24	1.00	1.00
Irrigation	Irrigation	2.36	74,143	6	16	1.17	1.50
Multi-family residence-master metered	Multi-Family Residential	1.09	439,660	7	16	1.00	1.50
Multi-family residence-master metered-public housing	Multi-Family Residential	1.17	9,124	7	16	1.00	1.50
Multi-family residence-individually metered	Single Family Residential	1.07	114,568	7	16	1.00	1.50
Townhouse-attached SF with yard	Single Family Residential	1.09	12,444	7	16	1.00	1.50
Multi-family residence-individually metered-public housing	Single Family Residential	1.12	4,904	7	16	1.00	1.50
Single Family Residence	Single Family Residential	1.19	730,659	7	16	1.00	1.50
Townhouse-SF with Fire Protection 3/4	Single Family Residential	1.24	909	6.5	16	1.08	1.50
Single Family Residence-public housing	Single Family Residential	1.32	140	6.5	16	1.08	1.50

Extra Capacity Factors by Customer Class — Schedule 9

	Single Family Residential	Multi-Family Residential	General Service	Irrigation	Total
Average Daily Consumption (MGD)	1.99	1.59	2.44	0.20	6.22
Max Month (MGD)	2.38	1.72	2.80	0.56	
Max Month/Ratio of Avg. Day	1.20	1.08	1.15	2.80	
System Max Day/Max Month Ratio	1.15	1.15	1.15	1.15	
Daily Usage Adjustment	1.06	1.00	1.14	1.17	
Calculated Max Day Peaking Factor	1.47	1.25	1.51	3.77	
Noncoincident Demand (MGD)	2.92	1.98	3.70	0.75	9.35
Noncoincident Max Day Peaking Factor	1.50				
Coincident Max Day Peaking Factor	1.44				
System MD Diversity*	**1.05**				

**AWWA M1: Range for System MD Diversity For Many Utility Systems is 1.10 - 1.40*

Peak Hour Usage Adjustment	1.50	1.50	1.42	1.50	
Calculated Peak Hour Peaking Factor	2.20	1.87	2.16	5.65	
Noncoincident Demand (MGD)	4.38	2.97	5.26	1.12	13.74
Noncoincident Max Hour Peaking Factor	2.21				
Coincident Max Hour Peaking Factor	1.71				
System MH Diversity*	**1.29**				

**AWWA M1: Range for System MH Diversity For Many Utility Systems is 1.10 - 1.40*

SOME POTENTIAL OPTIONS FOR GROUPING OWASA'S CUSTOMER CLASSES INTO GENERAL RATE CLASSES

The Board has discretionary authority to determine how OWASA's customer classes will be grouped into rate classes for the purpose of allocating costs and determining the rate structures applicable to the various classes.
The options presented below are for discussion purposes. There are multiple variations which the Board may wish to consider, such as including UNC Student Housing in the Master-Metered Multi-Family Rate Class.
Rate classes that are highlighted in yellow indicate variations from Option 1, which was the initial proposal in Burton and Associates' cost allocation study Technical Memorandum dated December 3, 2015.

OPTION 1. RATE CLASS SYSTEM FROM DRAFT COST ALLOCATION STUDY

POTENTIAL RATE CLASSES	OWASA Customer Classes Included in Rate Class	Summer Max-Mo. Peak	Annual Volume (1,000 Gallons)	Approx No. of Customers
GENERAL SERVICE	Restaurants	1.04	28,167	83
	Laundromats	1.06	4,260	7
	UNC Laboratory-Research	1.07	85,213	28
	Nursing Homes	1.07	11,580	8
	Office-Retail-Commercial-Banks	1.10	128,844	583
	Non-UNC Hospital-Medical Research-Health Care	1.11	31,748	34
	Gas Service Stations	1.12	2,053	25
	UNC Classroom-Faculty Offices	1.12	80,392	78
	Utilities	1.14	10,767	27
	UNC Other	1.14	52,175	71
	UNC Hospitals-Patient Care	1.16	102,529	21
	Non-UNC Irrigation	1.17	3,724	12
	Non-UNC Schools-Churches	1.19	37,192	100
	Private non-UNC dorms or group homes	1.21	41,164	62
	Hotel-Motel-Guest Quarters	1.21	33,995	12
	UNC Office-Admin	1.27	7,024	27
	Municipality-Government Operations	1.28	6,494	31
	UNC Student Housing	1.28	88,899	90
	Other	1.39	7,775	20
	Non-UNC Recreation Facilities	1.57	17,175	42
	Car Washes	1.81	1,171	4
	UNC Heating-Cooling	2.03	116,304	17
	Swimming Pools	2.25	2,530	13
SINGLE-FAMILY, INDIVIDUALLY-METERED	Multi-family, individually-metered	1.06	114,568	3,593
	Townhouse, individually-metered	1.08	12,444	426
	Multi-family, individually-metered Public Housing	1.11	4,904	139
	Single-family, individually-metered	1.17	730,659	14,626
	Townhouse, individually-metered with fire protection	1.24	909	34
	Single-family, individually-metered Public Housing	1.30	140	3
MULTI-FAMILY, MASTER-METERED	Multi-family, master-metered	1.13	439,660	553
	Multi-family, master-metered Public Housing	1.13	9,124	8
IRRIGATION	Irrigation	2.34	74,143	126

OPTION 2. RATE CLASS SYSTEM WITH 2-TIERED GENERAL SERVICE CLASS

POTENTIAL RATE CLASSES	OWASA Customer Classes Included in Rate Class	Summer Max-Mo. Peak	Annual Volume (1,000 Gallons)	Approx No. of Customers
GENERAL SERVICE < 1.5 PEAKING FACTOR	Restaurants	1.04	28,167	83
	Laundromats	1.06	4,260	7
	UNC Laboratory-Research	1.07	85,213	28
	Nursing Homes	1.07	11,580	8
	Office-Retail-Commercial-Banks	1.10	128,844	583
	Non-UNC Hospital-Medical Research-Health Care	1.11	31,748	34
	Gas Service Stations	1.12	2,053	25
	UNC Classroom-Faculty Offices	1.12	80,392	78
	Utilities	1.14	10,767	27
	UNC Other	1.14	52,175	71
	UNC Hospitals-Patient Care	1.16	102,529	21
	Non-UNC Irrigation	1.17	3,724	12
	Non-UNC Schools-Churches	1.19	37,192	100
	Private non-UNC dorms or group homes	1.21	41,164	62
	Hotel-Motel-Guest Quarters	1.21	33,995	12
	UNC Office-Admin	1.27	7,024	27
	Municipality-Government Operations	1.28	6,494	31
	UNC Student Housing	1.28	88,899	90
	Other	1.39	7,775	20
GENERAL SERVICE > 1.5 PEAKING FACTOR	Non-UNC Recreation Facilities	1.57	17,175	42
	Car Washes	1.81	1,171	4
	UNC Heating-Cooling	2.03	116,304	17
	Swimming Pools	2.25	2,530	13
SINGLE-FAMILY, INDIVIDUALLY-METERED	Multi-family, individually-metered	1.06	114,568	3,593
	Townhouse, individually-metered	1.08	12,444	426
	Multi-family, individually-metered Public Housing	1.11	4,904	139
	Single-family, individually-metered	1.17	730,659	14,626
	Townhouse, individually-metered with fire protection	1.24	909	34
	Single-family, individually-metered Public Housing	1.30	140	3
MULTI-FAMILY, MASTER-METERED	Multi-family, master-metered	1.13	439,660	553
	Multi-family, master-metered Public Housing	1.13	9,124	8
IRRIGATION	Irrigation	2.34	74,143	126

NOTE: A General Service Class that includes non-irrigation customer classes with peaking factors above 1.5 represents only 6.0% of OWASA's total annual drinking water sales volume.

OPTION 3. RATE CLASS SYSTEM WITH UNC CLASSES CONSOLIDATED

POTENTIAL RATE CLASSES	OWASA Customer Classes Included in Rate Class	Summer Max-Mo. Peak	Annual Volume (1,000 Gallons)	Approx No. of Customers
GENERAL SERVICE	Restaurants	1.04	28,167	83
	Laundromats	1.06	4,260	7
	Nursing Homes	1.07	11,580	8
	Office-Retail-Commercial-Banks	1.10	128,844	583
	Non-UNC Hospital-Medical Research-Health Care	1.11	31,748	34
	Gas Service Stations	1.12	2,053	25
	Utilities	1.14	10,767	27
	Non-UNC Irrigation	1.17	3,724	12
	Non-UNC Schools-Churches	1.19	37,192	100
	Private non-UNC dorms or group homes	1.21	41,164	62
	Hotel-Motel-Guest Quarters	1.21	33,995	12
	Municipality-Government Operations	1.28	6,494	31
	Other	1.39	7,775	20
	Non-UNC Recreation Facilities	1.57	17,175	42
	Car Washes	1.81	1,171	4
	Swimming Pools	2.25	2,530	13
SINGLE-FAMILY, INDIVIDUALLY-METERED	Multi-family, individually-metered	1.06	114,568	3,593
	Townhouse, individually-metered	1.08	12,444	426
	Multi-family, individually-metered Public Housing	1.11	4,904	139
	Single-family, individually-metered	1.17	730,659	14,626
	Townhouse, individually-metered with fire protection	1.24	909	34
	Single-family, individually-metered Public Housing	1.30	140	3
MULTI-FAMILY, MASTER-METERED	Multi-family, master-metered	1.13	439,660	553
	Multi-family, master-metered Public Housing	1.13	9,124	8
IRRIGATION	Irrigation	2.34	74,143	126
UNIVERSITY (23.3% of Total Annual DW Sales)	UNC Laboratory-Research	1.07	85,213	28
	UNC Classroom-Faculty Offices	1.12	80,392	78
	UNC Other	1.14	52,175	71
	UNC Hospitals-Patient Care	1.16	102,529	21
	UNC Office-Admin	1.27	7,024	27
	UNC Student Housing	1.28	88,899	90
	UNC Heating-Cooling	2.03	116,304	17

TABLE 1. RELATIVE COMPARISON OF GENERAL OPTIONS FOR MONTHLY SERVICE AND COMMODITY CHARGE RATE STRUCTURES

Relative comparison of performance to each other (only applicable to the objective for that row)

Key to Cell Shading:	Lowest Performance	Moderate Performance	Moderate to Good Performance	Good Performance

		RATE STRUCTURE ALTERNATIVES					
		FIXED MONTHLY CHARGES (What portion of revenues should they provide?) These charges cover costs to read and maintain meters and service lines, and provide customer services, including billing. They are also typically set to recover other portions of the fixed operating and capital costs utilities incur to operate, maintain, improve, and/or expand their systems.		**COMMODITY CHARGE STRUCTURE** This is the price a customer pays for each unit of water, sewer, and/or reclaimed water service they use. These charges recover all costs not recovered from fixed monthly charges, miscellaneous charges, and connection and capacity fees for new development.			
RATE-MAKING OBJECTIVES	**OPTIONS**	**NO OR LOWER FIXED CHARGES (0 - 15%)**	**FIXED CHARGES at 15 - 30%**	**UNIFORM RATES** The usage charge is the same regardless of the amount used.	**SEASONAL RATES** The usage charge varies based on seasonally-related variations in cost of service. Higher charges apply during the peak summer season, when more facility capacity is required than during the off-peak season.	**INCREASING BLOCK RATES** The price per unit of service received increases as the volume used increases.	**BUDGET-BASED RATES (AKA AVERAGE WINTER CONSUMPTION RATES)** The rates are based on the customer's typical usage pattern; higher rates apply to use that exceeds the customer's allotted use.
CONFORM WITH GENERALLY ACCEPTED RATE-MAKING PRACTICE		It is considered unacceptable to have no fixed charges, and low fixed charges are an uncommon approach; rating agencies discourage low fixed charges	Common and accepted approach (some utilities include minimum usage allowance in fixed charge)	Very common and accepted approach in the industry, especially for non-residential customers; federal and state revolving fund programs provide incentives for more advanced conservation rate structures	Uncommon, but accepted approach	Accepted and increasingly common approach for individually-metered residences	Accepted but less common approach than uniform and increasing block rates
ENSURE FISCAL SECURITY AND STABILITY		Least revenue stability, since all revenue depends on usage charges	Revenue stability increases as the percentage of revenue recovery from fixed charges increases	Relatively stable and predictable	Greater instability than uniform rates	Greater instability than seasonal and uniform rates; instability increases as the block rate increases	May lead to changes in customer demand patterns and associated revenues depending on structure and level of rates
FOLLOW COST-OF-SERVICE PRINCIPLES AND EQUITABLE FOR CUSTOMERS		Departs from cost of service; no or very low fixed charges would not adequately recover applicable direct fixed costs; therefore, most or all of fixed costs would have to be recovered through usage charges	Yes; recovers portion of fixed costs through fixed charges to customers that cause fixed costs to be incurred	Yes; recovers system capacity development costs proportionately from the customers who place the highest burden on the system	Recovers more peak season costs from customers causing peak seasonal demands	For individually-metered residences, better reflects increasing incremental costs associated with capacity expansions required to meet demands of customers with high peak demands; difficult and problematic to apply to non-residential customers	Is an effective cost-of-service approach with proper design of rate blocks
UNDERSTANDABLE AND ACCEPTED BY CUSTOMERS		Easy to understand; likely to be acceptable to customers with low usage	Easy to understand; higher fixed charges may not be accepted by customers, especially those with low usage	Easy to understand; acceptable to most customers	Easy to understand; moderately accepted by customers with seasonal peaks (issues with master-metered customer class that does not exhibit seasonal peak demand pattern)	More difficult to understand than uniform and seasonal rates; moderately accepted by residential customers (issues with large households with higher use); may not be acceptable to non-residential customers	May be difficult for customers to understand; customers may consider this an intrusion due to the need for utility to have customer-specific data
AFFORDABILITY		Affordable for low volume users	Generally less affordable for low volume users and more affordable for high volume users	Less affordable for low-volume users than increasing block rate structure	Less affordable for low-volume users than increasing block rate structure	Less affordable for large households with high use; "Lifeline" blocks can be established to shelter essential use from higher rates, thereby making rates more affordable for low-volume users	More affordable for customers with uniform year-round demands, since they benefit from surcharges applicable to other customers with high peak demands
NOT OVERLY COMPLEX TO IMPLEMENT AND ADMINISTER		Easy to implement	Easy to implement	Simplest commodity rate structure to implement and administer	Relatively easy for OWASA to implement and administer; (twice per year rate change has contributed to re-billing mistakes by parties that provide private sub-metering and re-billing services)	Moderately difficult to implement and administer	Most difficult to develop and implement; requires customer-specific approach amd information; customers allotment changes over time as demand changes; new customers don't have demand history so budget must initially be assumed
PROMOTES CONSERVATION OF RESOURCES AND SYSTEM CAPACITY		Stronger conversation is sent through higher commodity charges	Conservation signal is generally reduced as level of fixed charges increases; tiered fixed charge system may increase conservation signal	Provides modest conservation signal year-round	Provides conservation signal during peak demand season	If block price differences are substantial, the conservation signal will be strong year-round, as the incentive to conserve increases with greater consumption	Provides strong conservation signal year-round

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TECHNICAL MEMORANDUM

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DATE: December 3, 2015
TO: Stephen Winters, Director of Finance & Customer Service, OWASA
FROM: Andrew Burnham, Senior Vice President, Burton & Associates
RE: COST OF SERVICE ANALYSIS SUMMARY

The Orange Water and Sewer Authority (OWASA) retained Burton & Associates to perform a comprehensive Cost of Service Rate Study (Study) during Fiscal Year (FY) 2016. This technical memorandum (TM) provides a summary of the first work element, a detailed cost of service analysis. The cost of service analysis examines the costs incurred by OWASA to provide its services to various types of customers. The cost of service analysis informs the determination of the amount of revenue that should be collected for each defined rate class, which in turn is a major consideration during the rate structure evaluation portion of the Study. The cost of service analysis is comprised of four steps:

1. Determination of Rate[1] Classes: Detailed review of historical usage patterns for each type of property use to examine how specific customers impact the water, sewer and reclaimed water systems. Detailed property use/customer classes are grouped into rate classes based on similarities in system usage patterns and other property characteristics.

2. Allocation of Costs to Systems: Operating and capital costs for a defined test-year (currently FY 2016) are separated between the water, sewer and reclaimed water systems.

3. Allocation of System Costs to Functions: Water and sewer system costs[2] are allocated to specific functions, such as supply, treatment, distribution, meters/services, collection, disposal, etc. For each function, a unit of service is defined as the measure by which the costs of that function should be distributed to customers. For example, water supply costs are distributed based upon total demand, water treatment costs based upon maximum day and average day demands, etc.

4. Distribution of Function Costs to Rate Classes: The costs of each function are distributed based on the units of service for each defined rate class. A comparison of the revenue requirements and current revenues by class provides insight into the alignment of costs and rates by class.

The remainder of the TM provides a summary of the results of the cost of service analysis. The cost of service model workbook, which includes the detailed calculations, is being provided as a separate supplemental document.

[1] While often times referred to as "customer classes", the term "rate classes" is used herein to avoid confusion with the 32 detailed categories of customer types referred to as customer classes within the OWASA billing system.
[2] The reclaimed water system operates under a full-cost recovery approach in accord with OWASA-UNC reclaimed water contract terms. As such, once reclaimed water system costs were identified in this analysis, they were not allocated further to system functions or to rate classes.

DETERMINATION OF RATE CLASSES

The first step in the cost of service analysis was to examine historical usage patterns and other attributes of OWASA's various classes of customers. OWASA maintains a detailed customer billing system, and classifies customers into thirty-two separate customer classes for water use tracking, reporting, forecasting, and customer communications purposes.

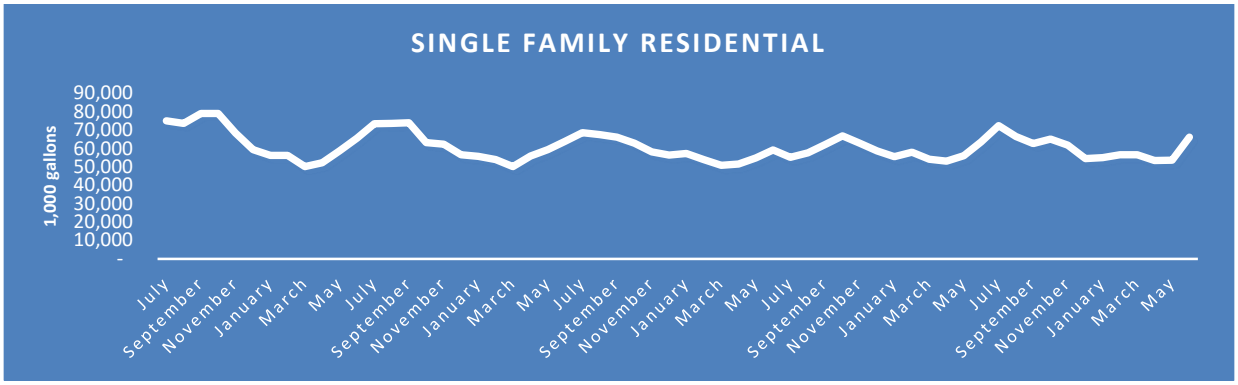
We analyzed detailed monthly metered usage data for each customer class over the past 10 years, as well as the corresponding number of customers and meters by size for each class. Usage patterns are critical to the analysis due to the amount of costs that OWASA incurs to meet peak water demands. The usage patterns analyzed by class included maximum month peaking factor (maximum month usage divided by the annual average monthly usage), a summer maximum month peaking factor (the maximum volume occurring during June, July, August or September divided by the annual average monthly usage) and the annual billed volume for each class. It should be noted that the summer maximum month peaking factor provides insight into the type of peak demand placed on the water system coincident with the period when OWASA experiences its highest total system demands. A comparison of the two peaking factors and the annual volume for each class provided insight into how the customer classes comparatively use water.

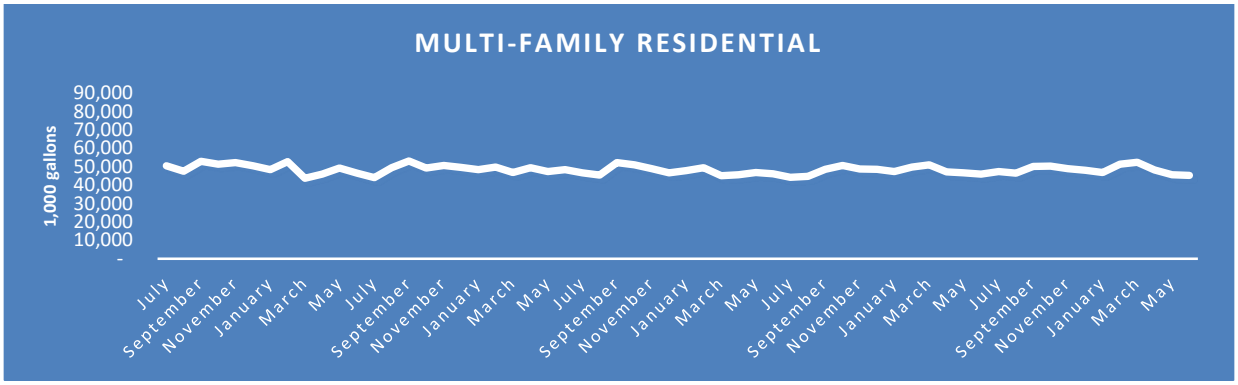
Following the analysis of water use by detailed customer class, we then grouped the various customer classes into four major "rate classes" as shown in the table: General Service; Irrigation; Multi-Family Residential (master-metered residences); and Single-Family Residential (individually-metered residences). The table below provides the peaking factors and annual volumes for each customer class.

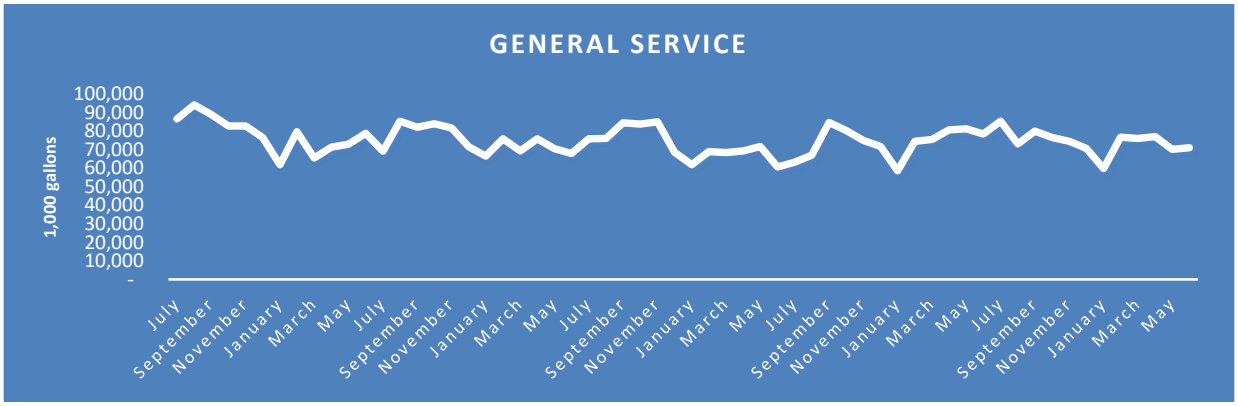
OWASA Water Customer Classes		Five Year Averages		
Customer Class	Potential Class Grouping	Max Month Peaking	Summer Max Month Peaking	Annual Volume (1,000 gallons)
Restaurants	General Service	1.06	1.04	28,167
Laundromats	General Service	1.10	1.06	4,260
UNC Laboratory-Research Facility	General Service	1.20	1.07	85,213
Nursing Homes	General Service	1.12	1.07	11,580
Office-Retail-Commercial-Banks	General Service	1.11	1.10	128,844
Non-UNC Hospital-Medical Research-Health Care	General Service	1.18	1.11	31,748
Gas Service Stations	General Service	1.15	1.12	2,053
UNC Classroom-Faculty Offices	General Service	1.22	1.12	80,392
Utilities	General Service	1.32	1.14	10,767
UNC Other	General Service	1.30	1.14	52,175
Fire Protection-Non-UNC fire lines	General Service	1.28	1.15	466
UNC Hospitals-Patient Care	General Service	1.17	1.16	102,529
Non-UNC Irrigation	General Service	1.30	1.17	3,724
Non-UNC Schools-Churches	General Service	1.28	1.19	37,192
Private non-UNC dormitory or group homes	General Service	1.36	1.21	41,164
Hotel-Motel-Inn-Commercial Guest Quarters	General Service	1.21	1.21	33,995
UNC Office-Administration	General Service	1.28	1.27	7,024
Municipality-Government Operations	General Service	1.40	1.28	6,494
UNC Student Housing	General Service	1.45	1.28	88,899
Other	General Service	1.38	1.39	7,775
Non-UNC Recreation Facilities	General Service	1.61	1.57	17,175
Car Washes	General Service	1.92	1.81	1,171
UNC Heating-Cooling	General Service	2.14	2.03	116,304
Swimming Pools	General Service	2.25	2.25	2,530
Bulk Waste Water Service	General Service	4.99	2.43	65
Irrigation	Irrigation	2.36	2.34	74,143
Multi-family residence-individually metered	Multi-Family Residential	1.07	1.06	114,568
Townhouse-attached SF with yard	Multi-Family Residential	1.09	1.08	12,444
Multi-family residence-individually metered-public housing	Multi-Family Residential	1.12	1.11	4,904
Multi-family residence-master metered	Multi-Family Residential	1.09	1.13	439,660
Multi-family residence-master metered-public housing	Multi-Family Residential	1.17	1.13	9,124
Townhouse-SF with Fire Protection 3/4	Multi-Family Residential	1.24	1.24	909
Single Family Residence	Single Family Residential	1.19	1.17	730,659
Single Family Residence-public housing	Single Family Residential	1.32	1.30	140

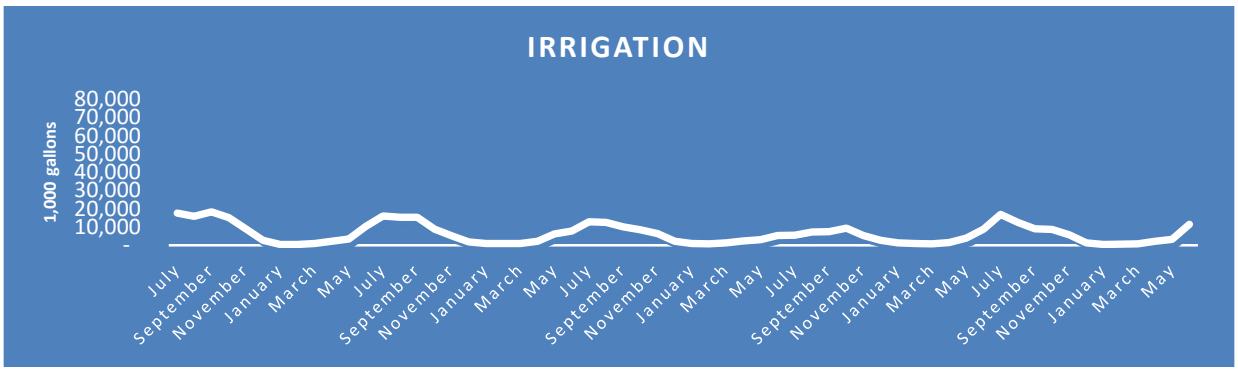
It should be noted that the General Service category includes customer classes with a fairly wide range of peaking factors. OWASA may want to consider further subdividing the General Service category.

The figures below present the monthly water use for each of the four rate classes over the past 5 years.









The same potential recommended rate class groupings for the water system were applied to the sewer system (with the exception of the Irrigation rate class). Typically, the cost drivers for a sewer system include the volume and strength of sewerage generated, with the strength (concentration/level of various pollutants) of volume being the driving consideration for the creation of separate rate classes for certain customers (such as laundromats and restaurants). However, given that OWASA does not currently sample the strength of wastewater generated by any specific customer or customer class, we are not recommending any additional rate classes for the sewer system. Over time, OWASA may want to sample the strength for various customer types to determine if any material differentials in strength exist that would warrant consideration of additional rate classifications for sewer service.

ALLOCATION OF COSTS TO SYSTEMS

The next step in the cost of service analysis was to allocate costs between the water, sewer, and reclaimed water systems/services provided by OWASA. The expenditures within the FY 2016 Budget were allocated between water, sewer and reclaimed water at a budgetary line item level based on each type of expense. The detailed allocation of the FY 2016 Budget is presented on Schedule 5 of the cost of service workbook provided in the Appendix, while the table below provides a summary of the total cost associated with each of the services provided by OWASA. It is important to note that the reclaimed water system is excluded from the remainder of the analysis presented herein as the system operates under a full-cost recovery approach in accord with the OWASA-UNC reclaimed water contract terms.

	Water System	Sewer System	Reclaim System	Total
FY 2016 Budget	$20,646,638	$20,363,334	$593,722	$41,603,694

ALLOCATION OF SYSTEM COSTS TO FUNCTIONS

Once the FY 2016 Budget allocations to the water and sewer systems were determined, the costs of each system were further allocated to the major functional categories. Specifically, water system costs were allocated between water supply, treatment, distribution, customer service/meters and fire protection. In most instances the specific budgetary line item could be directly allocated to a specific function based on the type of expenditure. When costs could not be directly allocated to a function, indirect allocations were used based on the type of expense. The detailed water system allocations to functions are shown on Schedule 6 of the cost of service workbook, while the following table presents a summary of the FY 2016 water system costs by major function.

	Water System Function					
	Supply	Treatment	Distribution	Meters/Services	Fire Protection	Total
FY 16 Water Costs	$3,644,067	$8,580,477	$5,998,778	$1,305,651	$1,117,665	$20,646,638

The preceding table demonstrates that the most significant functional cost category is water treatment, closely followed by costs associated with maintaining the distribution system. Overall, the allocation of costs between each of the functional categories is consistent with our experience with similar systems.

Similarly, the sewer system costs were allocated to defined system functions. Specifically, sewer system costs were allocated to customer, collection, treatment, and disposal functions. The detailed sewer system allocations to functions are shown on Schedule 7 of the cost of service workbook, while the following table presents a summary of the FY 2016 sewer system costs by function.

	Sewer System Function				
	Customer	Collection	Treatment	Disposal	Total
FY 16 Sewer Costs	$571,175	$6,834,816	$11,375,163	$1,582,180	$20,363,334

The preceding table demonstrates that the most significant functional cost category is treatment, accounting for nearly 50% of the total cost of providing sewer service. Costs associated with maintaining the collection system account for just over 35% of the sewer system costs. As with the water system, the allocation of costs between functions is consistent with our experience with other similar systems.

DISTRIBUTION OF FUNCTION COSTS TO RATE CLASSES

Water System Cost Distribution

The final step in the cost of service analysis is to distribute the costs of each system function to each rate class. The Base-Extra Capacity Method as outlined by the American Water Works Association (AWWA) in the M1 Manual was used to distribute the costs of each function of the water system. Under this approach, the costs of each function are allocated to base, extra capacity, customer, and fire protection cost components. Base costs are those that tend to vary with the total quantity of water used and extra capacity costs are those associated with meeting peak demands. Customer costs are associated with serving each customer (such as meter reading, billing, and customer service program costs), irrespective of the quantity of water used, and fire protection costs are associated with providing sufficient capacity to meet fire protection demands. The percentage distribution of the costs of each function of the water system to the identified cost components are shown in the table below.

Percentage to Each Water System Component	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Fire Protection	Customers
Source of Supply	100.0%				
Treatment	69.6%	30.4%			
Distribution	58.3%	25.5%	16.2%		
Meters/Services					100.0%
Fire Protection				100.0%	

The table shows that source of supply, fire protection and customer costs are directly allocated to the appropriate cost component. Water treatment and distribution costs are allocated based on the ratios of the water system's average day, maximum day, and peak hour demands (distribution only). The ratios in the table are based on the average system demands in the OWASA water system over the past five years. The following table presents the corresponding distribution of costs by system component.

FY 16 Water System Costs	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Fire Protection	Customer - Meters/Services
Source of Supply	3,644,067	-	-	-	-
Treatment	5,971,139	2,609,338	-	-	-
Distribution	3,499,203	1,529,123	970,453	-	-
Meters/Services	-	-	-	-	1,305,651
Fire Protection	-	-	-	1,117,665	-
Total	**$13,114,408**	**$4,138,461**	**$970,453**	**$1,117,665**	**$1,305,651**

Once the costs were allocated to the water system components, the units of service (i.e. volume of water, number of customer bills, etc.) associated with each of the system components were determined. The units of service were determined based on the actual billed volumes for each of the rate classes, the

number of billed service connections within each class, the demonstrated maximum month peaking factors and calculated maximum day and peak hour demands for each class. OWASA measures and bills customer use on a monthly basis, so it does not have specific maximum day and peak hour usage data for its various customer classes. Therefore, maximum day and peak hour demand factors for each customer class have been calculated by applying water and sewer utility industry methods and ratios. The units of service for each potential rate class are shown in the following table.

Water System Units of Service	Total Annual Use (1,000 gallons)	Max Day Extra Capacity (1,000 gpd)	Peak Hour Extra Capacity (1,000 gpd)	Fire Protection (1,000 gallons)	Number of Bills
Single Family Residential	724,976	968	1,477	1,699,700	169,970
Multi-Family Residential	581,241	390	991	550,820	55,082
General Service	890,738	1,256	1,566	499,380	16,646
Irrigation	72,499	549	374	-	2,953
Total	**2,269,454**	**3,164**	**4,408**	**2,749,900**	**244,651**

The detailed analysis of the units of service are presented in Schedule 10 of the cost of service workbook. The establishment of the units of service enabled the determination of the unit costs for each of the system components. Based on the units of service associated with each rate class and the calculation of unit costs, the cost of service and net revenue requirements for each class were determined. The following table shows the water system revenue requirement for each rate class. For this purpose, anticipated revenues from other miscellaneous fees and charges (such as plan review fees, lake recreation fees, and cellular antenna leases) have been subtracted from the revenue requirements of the system, since the monthly revenues collected from OWASA's water customers do not need to cover the costs related to those miscellaneous fees and charges.

Water Revenue Requirements	Single Family Residential	Multi-Family Residential	General Service	Irrigation
Operations and Maintenance	4,393,906	2,545,797	3,868,129	621,958
Debt Service	1,664,126	1,167,612	2,006,480	326,001
Rate Funded Capital	1,320,487	891,920	1,552,665	287,558
Less: Other Revenue	$1,079,888	$632,694	$935,974	$150,698
Revenue Requirement from Rates	**$6,298,631**	**$3,972,635**	**$6,491,300**	**$1,084,819**

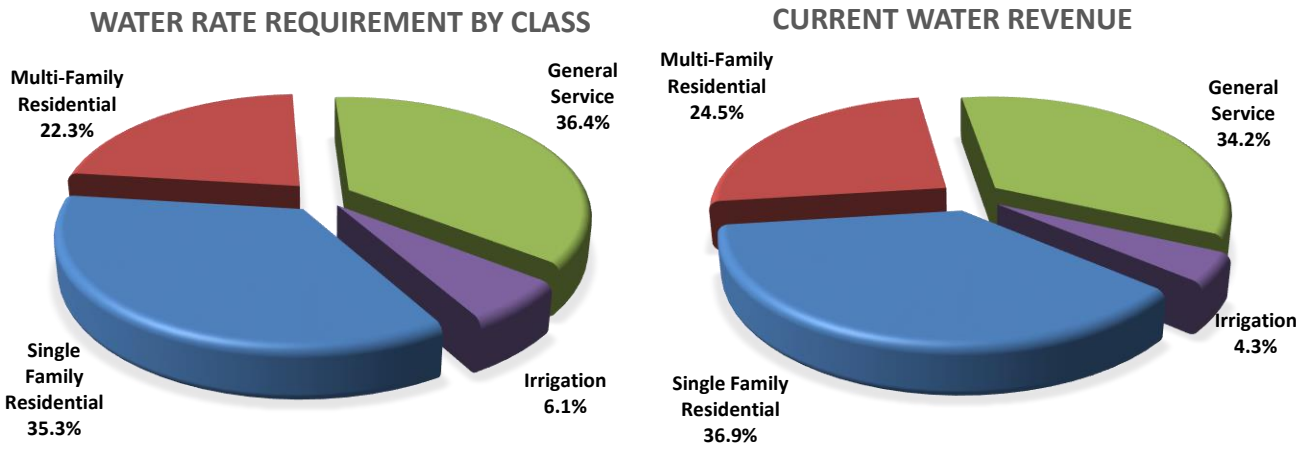
A comparison of the estimated revenue generated by each class with current rates and the revenue requirements provides insight into the alignment of current revenues with the cost to serve each class.

	Total	Single Family Residential	Multi-Family Residential	General Service	Irrigation
Rate Requirement	17,847,384	6,298,631	3,972,635	6,491,300	1,084,819
Estimated Current Rate Revenue*	17,990,169	6,639,864	4,412,973	6,160,557	776,775
Over/(Under) Recovery	**$142,784**	**$341,233**	**$440,338**	**($330,742)**	**($308,044)**
Estimated Total Revenue		36.9%	24.5%	34.2%	4.3%
System Revenue Requirement by Class		35.3%	22.3%	36.4%	6.1%
Over / (Under) Recovery Percentage		**1.6%**	**2.3%**	**-2.1%**	**-1.8%**

**Estimated revenues for FY16 based on current rates*

As expected, there are some variances between current revenues and the cost of service for each rate class, as the distribution of costs and usage patterns will vary somewhat from year to year. Other contributing factors to the variances include the changes in customer demand profiles (notably residential) since the last detailed cost of service analysis, as well as the impacts of the implementation of the reclaimed water system. In that regard, were it not for the reclaimed water system, the peak

demands of the General Service rate class would likely be larger, resulting in a greater cost allocation to this class of user. The following figures provide a graphical comparison of the percentage of water system revenue requirements and estimated revenues by rate class.



Sewer System Cost Distribution

The distribution of costs of each function of the sewer system to the identified rate classes requires a slightly different approach than the water system. Rather than allocate costs based on peak demands (i.e. the base-extra capacity approach), sewer costs are typically allocated to volume, customer, and various pollutant categories. The percentage distribution of the costs of each function of the sewer system to the identified cost components are shown in the following table.

Percentage to Each Sewer System Component	Volume	Biological Oxygen Demand	Suspended Solids	Nitrogen	Phosphorous	Customer
Customer						100.0%
Collection	100.0%					
Treatment	50.0%	21.6%	24.9%	2.9%	0.6%	
Disposal		43.2%	49.9%	5.8%	1.2%	

The table shows that customer and collection costs are directly allocated to the appropriate cost component. Treatment and solids disposal costs are allocated based on the ratios of the volumes and total pounds of each pollutant processed. The ratios in the table are based on the average volumes and pounds of pollutants processed by the OWASA system over the past five years. The following table presents the corresponding distribution of sewer costs by system component.

FY 16 Sewer System Costs	Volume	Biological Oxygen Demand	Total Suspended Solids	Nitrogen	Phosphorous	Customer
Customer	-	-	-	-	-	571,175
Collection	6,834,816	-	-	-	-	-
Treatment	5,687,581	2,455,114	2,835,566	327,512	69,389	-
Disposal	-	682,902	788,726	91,099	19,301	-
Total	**$12,522,398**	**$3,138,016**	**$3,624,293**	**$418,610**	**$88,690**	**$571,175**

Once the costs were allocated to the sewer system components, the units of service (i.e. volume, number of customer bills issued, pounds of pollutants, etc.) associated with each of the system components were determined. The units of service were determined based on the actual billed volumes

for each of the rate classes, the number billed service connections within each class, and assumed wastewater strength concentrations by rate class. It should be noted that the analysis, assumes that all rate classes generate the same strength of wastewater, as OWASA does not currently sample the strength of wastewater generated by its various types of customers[3]. The units of service for the defined rate classes within the OWASA sewer system are shown in the following table.

Sewer System Units of Service	Annual Use 1,000 gallons	Biological Oxygen Demand (lbs)	Total Suspended Solids (lbs)	Nitrogen (lbs)	Phosphorous (lbs)	Number of Bills
Single Family Residential	662,369	1,792,558	2,097,675	236,465	45,767	160,112
Multi-Family Residential	576,554	1,560,319	1,825,905	205,829	39,838	54,853
General Service	840,299	2,274,087	2,661,166	299,986	58,062	15,770
Total	**2,079,222**	**5,626,964**	**6,584,745**	**742,280**	**143,667**	**230,735**

The detailed analysis of the units of service are presented in Schedule 10 of the cost of service workbook. The establishment of the units of service enabled the determination of the unit costs for each system component. Based on the units of service associated with each rate class and the calculation of unit costs, the cost of service and net revenue requirements for each class were determined. As was done for the water cost allocation process, anticipated revenues from miscellaneous fees and charges (such as plan review fees, lake recreation fees, and cellular antenna leases) have been subtracted from the revenue requirements of the sewer system, since the monthly revenues collected from OWASA's sewer customers do not need to cover the costs related to those miscellaneous fees and charges. The following table shows the sewer system revenue requirement for each rate class.

Sewer Revenue Requirement	Single Family Residential	Multi-Family Residential	General Service
Operations and Maintenance	2,935,932	2,472,608	3,540,716
Debt Service	1,038,614	901,513	1,311,981
Rate Funded Capital	2,726,861	2,249,854	3,185,104
Total Revenue Requirements	**$6,701,407**	**$5,623,974**	**$8,037,801**
Less: Other Revenue	$1,251,771	$950,593	$1,273,999
Revenue Requirement from Rates	**$5,449,636**	**$4,673,382**	**$6,763,802**

A comparison of the estimated revenue generated by each class with current rates and the revenue requirements provides insight into the alignment of current revenues with the cost to serve each class.

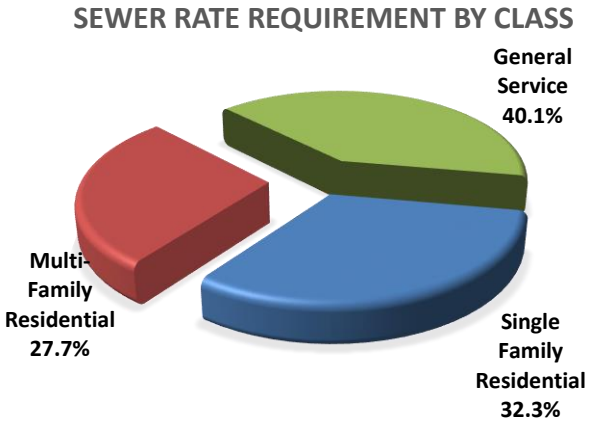
	Total	Single Family Residential	Multi-Family Residential	General Service
Rate Requirement	16,886,820	5,449,636	4,673,382	6,763,802
Estimated Current Rate Revenue*	16,794,115	6,222,123	4,593,641	5,978,351
Over/(Under) Recovery	**($92,705)**	**$772,486**	**($79,740)**	**($785,451)**
Estimated Total Revenue		37.0%	27.4%	35.6%
System Revenue Requirement by Class		32.3%	27.7%	40.1%
Over / (Under) Recovery Percentage		**4.8%**	**-0.3%**	**-4.5%**

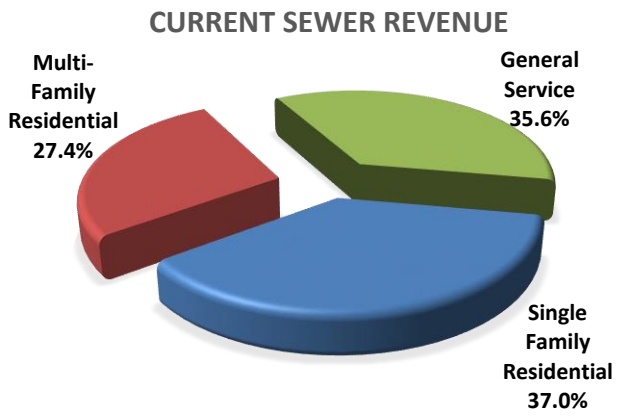
**Estimated revenues for FY16 based on current rates*

As expected, there are some variances between current revenues and the cost of service for each rate class, as the distribution of costs and customer volumes will vary somewhat from year to year. Other

[3] Some communities will sample and differentiate users with higher strengths. However, this is often times only for a limited number of users, such as restaurants and laundromats.

contributing factors to the variances include the changes in billed customer demand profiles (notably residential) since the last detailed cost of service analysis, and OWASA's use of lower, non-standard adjustment factors to establish the monthly service charges for customers with larger meters (predominantly General Service customers). If OWASA decided to use higher, more common industry meter ratio factors as recommended in the FY 2012 Rate Study, it would eliminate some of the variance between the current revenues and cost of service for this class of user. The following figures provide a graphical comparison of the percentage of sewer revenue requirements and revenues by rate class.





TRANSITION TO RATE DESIGN

The resulting allocations of revenue requirements to defined rate classes for each system will inform the evaluation of alternative rate structures by class. The rate structure evaluation phase will identify rates and corresponding revenue generation and customer impacts for each rate class consistent with the direction of the rate structures to be evaluated as identified by the Board at its December 10, 2015 meeting. Each of the rate structure alternatives evaluated will be developed such that the revenue generation by class of customer is consistent with the results of this cost of service analysis.

Therefore, prior to proceeding to the rate structure evaluation, Board direction is requested relative to:

- The recommended rate classes identified as part of the cost of service analysis.
- The types of rate structures to be evaluated for each rate class.

During the Board meeting on December 10, 2015, we will facilitate a discussion of not only the cost of service analysis presented herein, but also explore the types of rate structures to be evaluated for each identified rate class with the goal of receiving the requested direction from the Board of Directors.

It is our understanding that this memorandum and other supporting materials will be provided to the Board as part of the agenda for the December 10, 2015 meeting. If you or others have any questions or would like to discuss the analysis presented herein, please do not hesitate to call me at (813)-443-5138 or Dave Hyder at (240)-544-5425.

Very Sincerely,

Andrew J. Burnham
Senior Vice President

OWASA - FY 16 Water & Sewer Cost Allocation

Cost of Service Allocation Model



BURTON & ASSOCIATES

UTILITY RATES ▪ ASSESSMENTS ▪ FINANCIAL PLANNING

Cost Allocation Framework: Mapping of Functions & Cost Components

Schedule 1

Service	**Water**	**Sewer**
Function		
A	Source of Supply	Meters/Services
B	Treatment	Collection System
C	Transmission/Distribution	Treatment
D	Meters/Services	Disposal
E	Fire Protection	

WATER

Function	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Potential Fire Demand	Customer
Source of Supply	X				
Treatment	X	X			
Transmission/Distribution	X	X	X		
Meters/Services					X
Fire Protection				X	

SEWER

		Strength				
Function	Volume	CBOD	TSS	TKN	TP	Customer
Meters/Services						X
Collection System	X					
Treatment	X	X	X	X	X	
Disposal		X	X	X	X	

Total System Allocation Factors	Label	Water	Sewer	Reclaim	
Meter Equivalents	Meters	54.6%	45.3%	0.05%	100.0%
Water Only	WAT	100.0%	0.0%	0.0%	100.0%
Sewer Only	SEW	0.0%	100.0%	0.0%	100.0%
Reclaim Only	RW	0.0%	0.0%	100.0%	100.0%
Revenues	REV	50.0%	48.7%	1.3%	100.0%
Fixed Assets	FA	42.6%	55.6%	1.8%	100.0%
Weighted Average (All Divisions)	WTD$	49.6%	48.9%	1.4%	100.0%
Full Time Equivalents	FTE	60.8%	38.4%	0.8%	100.0%
5-Year CIP	Five Year CIP	44.1%	55.9%	0.0%	100.0%
FY 16 Cash Funded CIP	FY16 CIP	21.3%	78.7%	0.0%	100.0%
Reclaim Agreement - Water Operating	Water FAMS	98.80%	0.00%	1.20%	100.0%
Reclaim Agreement - Sewer Operating	Sewer FAMS	0.00%	95.93%	4.07%	100.0%
Not Applicable	N/A	0.0%	0.0%	0.0%	0.0%

Water System Allocation Factors	Single Family Residential	Multi-Family Residential	General Service	Irrigation	
Total Customers	69.5%	22.5%	6.8%	1.2%	100.0%
Meter Equivalents	48.5%	24.9%	24.2%	2.4%	100.0%
Water Sales	31.9%	25.6%	39.2%	3.2%	100.0%
Max Day Demand	30.6%	12.3%	39.7%	17.4%	100.0%
Max Hour Demand	33.5%	22.5%	35.5%	8.5%	100.0%

Sewer System Allocation Factors	Single Family Residential	Multi-Family Residential	General Service	
Total Customers	69.4%	23.8%	6.8%	100.0%
Meter Equivalents	48.5%	26.3%	25.1%	100.0%
Volume	31.9%	27.7%	40.4%	100.0%
Strength	31.9%	27.7%	40.4%	100.0%

		FY 2016 Budget	ADJ.	FY 2016 COSA
Executive Directors Office				
5010	SALARIES & WAGES - REGULAR	549,968		549,968
5070	PER DIEM	15,000		15,000
5110	FICA EXPENSE	39,972		39,972
5120	RETIREMENT CONTRIBUTION	38,024		38,024
5121	DEFERRED COMPENSATION	7,800		7,800
5130	WORKERS' COMPENSATION	12,000		12,000
5140	HEALTH INSURANCE	73,454		73,454
5141	DENTAL INSURANCE	3,748		3,748
5150	DISABILITY SALARY CONTINUATION	1,622		1,622
5160	AUTOMOBILE ALLOWANCE	6,000		6,000
5180	GROUP LIFE & A D & D	1,933		1,933
5210	ELECTRICITY	45,000		45,000
5233	CELL PHONE STIPENDS	5,000		5,000
5240	FUEL	12,000		12,000
5330	SUBSCRIPTIONS	910		910
5360	OFFICE SUPPLIES	10,900		10,900
5380	SAFETY SUPPLIES	450		450
5500	LEGAL	240,000		240,000
5530	INSURANCE	39,109		39,109
5570	CONSULTANTS	38,000		38,000
5590	PROFESSIONAL SERVICES - OTHERS	0		-
5610	POSTAGE AND FREIGHT	11,700		11,700
5620	CUSTOMER INFORMATION	21,635		21,635
5630	ADVERTISING	3,630		3,630
5690	OTHER	5,280		5,280
5700	PRINTING AND REPRODUCTION	1,000		1,000
5810	EDUCATION & DEVELOPMENT	13,080		13,080
5840	BOARD TRAVEL	4,500		4,500
5910	DUES AND MEMBERSHIPS	17,530		17,530
5920	CONSERVATION	25,000		25,000
5970	BOARD EXPENSE	4,500		4,500
5990	OTHER	1,550		1,550
6010	FORCE ACCOUNT - LABOR	(41,658)		(41,658)
Executive Directors Office Subtotal		**1,208,637**	**-**	**1,208,637**

		FY 2016 Budget	ADJ.	FY 2016 COSA
Customer Services				
5010	SALARIES & WAGES - REGULAR	392,920		392,920
5020	SALARIES & WAGES - OVERTIME	3,000		3,000
5110	FICA EXPENSE	31,009		31,009
5120	RETIREMENT CONTRIBUTION	27,036		27,036
5121	DEFERRED COMPENSATION	13,520		13,520
5140	HEALTH INSURANCE	107,933		107,933
5141	DENTAL INSURANCE	5,544		5,544
5150	DISABILITY SALARY CONTINUATION	1,727		1,727
5180	GROUP LIFE & A D & D	2,595		2,595
5233	CELL PHONE STIPENDS	1,500		1,500
5360	OFFICE SUPPLIES	4,000		4,000
5560	COLLECTION SERVICES	45,000		45,000
5570	CONSULTANTS	0		-
5610	POSTAGE AND FREIGHT	75,000		75,000
5700	PRINTING AND REPRODUCTION	1,000		1,000
5810	EDUCATION & DEVELOPMENT	5,000		5,000
5930	OVERAGE AND SHORTAGES	0		-
5940	UNCOLLECTABLE ACCOUNTS	30,000		30,000
5990	OTHER	0		-
Customer Services Subtotal		**746,784**	**-**	**746,784**
Engineering				
5010	SALARIES & WAGES - REGULAR	1,060,949		1,060,949
5020	SALARIES & WAGES - OVERTIME	9,000		9,000
5060	PART TIME SUMMER	65,000		65,000
5110	FICA EXPENSE	82,411		82,411
5120	RETIREMENT CONTRIBUTION	71,854		71,854
5121	DEFERRED COMPENSATION	18,720		18,720
5140	HEALTH INSURANCE	194,251		194,251
5141	DENTAL INSURANCE	8,454		8,454
5150	DISABILITY SALARY CONTINUATION	4,770		4,770
5180	GROUP LIFE & A D & D	4,802		4,802
5233	CELL PHONE STIPENDS	9,200		9,200
5320	SMALL TOOLS	2,060		2,060
5330	SUBSCRIPTIONS	615		615
5350	FUEL - VEHICLES	7,000		7,000
5360	OFFICE SUPPLIES	3,650		3,650
5380	SAFETY SUPPLIES	2,425		2,425
5390	OTHER - MATERIALS AND SUPPLIES	1,450		1,450
5440	MOTOR VEHICLES	2,500		2,500
5520	ENGINEERING	5,000		5,000
5570	CONSULTANTS	122,500		122,500
5610	POSTAGE AND FREIGHT	400		400
5700	PRINTING AND REPRODUCTION	1,600		1,600
5810	EDUCATION & DEVELOPMENT	22,790		22,790
5910	DUES AND MEMBERSHIPS	3,335		3,335
5960	FOREST MANAGEMENT	10,000		10,000
5990	OTHER	0		-
Engineering Subtotal		**1,714,736**	**-**	**1,714,736**

		FY 2016 Budget	ADJ.	FY 2016 COSA
Human Resources				
5010	SALARIES & WAGES - REGULAR	195,167		195,167
5020	SALARIES & WAGES - OVERTIME	1,000		1,000
5110	FICA EXPENSE	15,313		15,313
5120	RETIREMENT CONTRIBUTION	13,351		13,351
5121	DEFERRED COMPENSATION	6,240		6,240
5140	HEALTH INSURANCE	44,939		44,939
5141	DENTAL INSURANCE	2,124		2,124
5142	VISION INSURANCE	50,000		50,000
5143	WELLNESS PROFRA REIMBURSEMENT	2,300		2,300
5144	RETIREES & COBRA INSURANCE	176,744		176,744
5150	DISABILITY SALARY CONTINUATION	894		894
5161	UNEMPLOYMENT TAX	21,000		21,000
5170	UNIFORMS	200		200
5180	GROUP LIFE & A D & D	1,020		1,020
5233	CELL PHONE STIPENDS	1,750		1,750
5330	SUBSCRIPTIONS	200		200
5360	OFFICE SUPPLIES	2,500		2,500
5380	SAFETY SUPPLIES	2,500		2,500
5390	OTHER - MATERIALS AND SUPPLIES	500		500
5570	CONSULTANTS	326,000		326,000
5590	PROFESSIONAL SERVICES - OTHERS	32,000		32,000
5610	POSTAGE AND FREIGHT	3,500		3,500
5630	ADVERTISING	20,000		20,000
5700	PRINTING AND REPRODUCTION	800		800
5810	EDUCATION & DEVELOPMENT	8,800		8,800
5910	DUES AND MEMBERSHIPS	5,000		5,000
5980	RECRUITMENT EXPENSE	4,000		4,000
Human Resources Subtotal		**962,842**	**-**	**962,842**
Finance Department				
5010	SALARIES & WAGES - REGULAR	467,351		467,351
5020	SALARIES & WAGES - OVERTIME	0		-
5110	FICA EXPENSE	35,429		35,429
5120	RETIREMENT CONTRIBUTION	32,021		32,021
5121	DEFERRED COMPENSATION	10,920		10,920
5140	HEALTH INSURANCE	79,355		79,355
5141	DENTAL INSURANCE	3,755		3,755
5150	DISABILITY SALARY CONTINUATION	1,908		1,908
5180	GROUP LIFE & A D & D	2,040		2,040
5233	CELL PHONE STIPENDS	3,250		3,250
5250	WASTE DISPOSAL	2,000		2,000
5360	OFFICE SUPPLIES	4,000		4,000
5390	OTHER - MATERIALS AND SUPPLIES	8,000		8,000
5510	ACCOUNTING	30,000		30,000
5570	CONSULTANTS	50,000		50,000
5580	FINANCIAL SERVICES	241,600		241,600
5581	TRUSTEE SERVICES	29,350		29,350
5590	PROFESSIONAL SERVICES - OTHERS	24,000		24,000
5610	POSTAGE AND FREIGHT	4,000		4,000
5700	PRINTING AND REPRODUCTION	3,000		3,000
5810	EDUCATION & DEVELOPMENT	9,025		9,025
5910	DUES AND MEMBERSHIPS	2,405		2,405
5950	RENTS AND LEASES	3,400		3,400
Finance Department Subtotal		**1,046,809**	**-**	**1,046,809**

		FY 2016 Budget	ADJ.	FY 2016 COSA
IT Department				
5010	SALARIES & WAGES - REGULAR	320,443		320,443
5020	SALARIES & WAGES - OVERTIME	0		-
5110	FICA EXPENSE	25,293		25,293
5120	RETIREMENT CONTRIBUTION	22,053		22,053
5121	DEFERRED COMPENSATION	3,120		3,120
5140	HEALTH INSURANCE	58,314		58,314
5141	DENTAL INSURANCE	3,025		3,025
5150	DISABILITY SALARY CONTINUATION	1,413		1,413
5180	GROUP LIFE & A D & D	1,378		1,378
5231	TELEPHONE - LOCAL	106,960		106,960
5233	CELL PHONE STIPENDS	6,000		6,000
5360	OFFICE SUPPLIES	10,000		10,000
5365	COMPUTER EQUIPMENT & PARTS	72,180		72,180
5410	MAINTENANCE - EQUIPMENT	307,870		307,870
5570	CONSULTANTS	125,000		125,000
5810	EDUCATION & DEVELOPMENT	17,180		17,180
5950	RENTS AND LEASES	40,400		40,400
IT Department Subtotal		**1,120,629**	**-**	**1,120,629**
Water Supply and Treatment				
5010	SALARIES & WAGES - REGULAR	1,252,160		1,252,160
5020	SALARIES & WAGES - OVERTIME	66,119		66,119
5050	STANDBY PAY	4,929		4,929
5060	PART TIME SUMMER	18,800		18,800
5110	FICA EXPENSE	106,174		106,174
5120	RETIREMENT CONTRIBUTION	92,573		92,573
5121	DEFERRED COMPENSATION	28,600		28,600
5130	WORKERS' COMPENSATION	26,000		26,000
5140	HEALTH INSURANCE	299,490		299,490
5141	DENTAL INSURANCE	13,100		13,100
5150	DISABILITY SALARY CONTINUATION	5,639		5,639
5170	UNIFORMS	12,000		12,000
5180	GROUP LIFE & A D & D	7,203		7,203
5210	ELECTRICITY	231,073		231,073
5233	CELL PHONE STIPENDS	9,750		9,750
5240	FUEL	19,500		19,500
5250	WASTE DISPOSAL	80,600		80,600
5310	CHEMICALS	1,036,528		1,036,528
5320	SMALL TOOLS	5,000		5,000
5340	LAKE SUPPLIES	20,200		20,200
5350	FUEL - VEHICLES	27,299		27,299
5360	OFFICE SUPPLIES	3,200		3,200
5370	LABORATORY EXPENSE	71,200		71,200
5380	SAFETY SUPPLIES	8,398		8,398
5390	OTHER - MATERIALS AND SUPPLIES	5,500		5,500
5410	MAINTENANCE - EQUIPMENT	242,801		242,801

		FY 2016 Budget	ADJ.	FY 2016 COSA
5413	MAINTENANCE - PUMPING EQUIPMENT	128,250		128,250
5415	MAINT - RESERVOIR & TANKS	142,200		142,200
5420	FACILITIES	30,300		30,300
5421	BUILDINGS	293,650		293,650
5423	MAINTENANCE - METERS	94,800		94,800
5430	MAINTENANCE - GROUNDS	82,000		82,000
5440	MOTOR VEHICLES	15,661		15,661
5530	INSURANCE	100,206		100,206
5570	CONSULTANTS	70,100		70,100
5590	PROFESSIONAL SERVICES - OTHERS	16,000		16,000
5610	POSTAGE AND FREIGHT	4,000		4,000
5810	EDUCATION & DEVELOPMENT	16,000		16,000
5910	DUES AND MEMBERSHIPS	11,090		11,090
5950	RENTS AND LEASES	2,000		2,000
5990	OTHER	1,500		1,500
Water Supply and Treatment Subtotal		**4,701,593**	**-**	**4,701,593**
Water Distribution				
5010	SALARIES & WAGES - REGULAR	1,322,255		1,322,255
5020	SALARIES & WAGES - OVERTIME	41,000		41,000
5050	STANDBY PAY	20,965		20,965
5110	FICA EXPENSE	108,557		108,557
5120	RETIREMENT CONTRIBUTION	94,650		94,650
5121	DEFERRED COMPENSATION	31,720		31,720
5130	WORKERS' COMPENSATION	22,000		22,000
5140	HEALTH INSURANCE	403,004		403,004
5141	DENTAL INSURANCE	16,871		16,871
5150	DISABILITY SALARY CONTINUATION	7,079		7,079
5170	UNIFORMS	21,000		21,000
5180	GROUP LIFE & A D & D	8,818		8,818
5210	ELECTRICITY	165,000		165,000
5233	CELL PHONE STIPENDS	8,000		8,000
5240	FUEL	5,000		5,000
5250	WASTE DISPOSAL	500		500
5320	SMALL TOOLS	7,000		7,000
5330	SUBSCRIPTIONS	175		175
5350	FUEL - VEHICLES	68,500		68,500
5360	OFFICE SUPPLIES	1,500		1,500
5380	SAFETY SUPPLIES	12,798		12,798
5390	OTHER - MATERIALS AND SUPPLIES	1,200		1,200
5421	BUILDINGS	1,500		1,500
5422	MAINTENANCE - MAINS	297,185		297,185
5423	MAINTENANCE - METERS	70,910		70,910
5424	MAINTENANCE - HYDRANTS	30,000		30,000
5425	MAINTENANCE - SERVICE LINES	37,000		37,000
5440	MOTOR VEHICLES	67,685		67,685
5530	INSURANCE	10,707		10,707
5610	POSTAGE AND FREIGHT	1,500		1,500
5700	PRINTING AND REPRODUCTION	1,000		1,000
5810	EDUCATION & DEVELOPMENT	12,070		12,070
5910	DUES AND MEMBERSHIPS	1,600		1,600
5950	RENTS AND LEASES	2,000		2,000
5990	OTHER	500		500
6010	FORCE ACCOUNT - LABOR	(53,000)		(53,000)
Water Distribution Subtotal		**2,848,249**	**-**	**2,848,249**

		FY 2016 Budget	ADJ.	FY 2016 COSA
Wastewater Treatment				
5010	SALARIES & WAGES - REGULAR	1,169,976		1,169,976
5020	SALARIES & WAGES - OVERTIME	60,080		60,080
5050	STANDBY PAY	6,583		6,583
5110	FICA EXPENSE	99,567		99,567
5120	RETIREMENT CONTRIBUTION	86,812		86,812
5121	DEFERRED COMPENSATION	31,200		31,200
5130	WORKERS' COMPENSATION	24,000		24,000
5140	HEALTH INSURANCE	291,731		291,731
5141	DENTAL INSURANCE	13,301		13,301
5150	DISABILITY SALARY CONTINUATION	5,574		5,574
5170	UNIFORMS	12,000		12,000
5180	GROUP LIFE & A D & D	6,563		6,563
5210	ELECTRICITY	529,500		529,500
5233	CELL PHONE STIPENDS	6,600		6,600
5240	FUEL	65,000		65,000
5250	WASTE DISPOSAL	562,521		562,521
5310	CHEMICALS	695,080		695,080
5315	LAND APPLICATION	60,000		60,000
5320	SMALL TOOLS	5,000		5,000
5350	FUEL - VEHICLES	20,107		20,107
5360	OFFICE SUPPLIES	5,000		5,000
5370	LABORATORY EXPENSE	114,900		114,900
5380	SAFETY SUPPLIES	12,000		12,000
5390	OTHER - MATERIALS AND SUPPLIES	5,000		5,000
5410	MAINTENANCE - EQUIPMENT	349,954		349,954
5413	MAINTENANCE - PUMPING EQUIPMENT	365,000		365,000
5420	FACILITIES	0		-
5421	BUILDINGS	69,000		69,000
5423	MAINTENANCE - METERS	75,000		75,000
5430	MAINTENANCE - GROUNDS	12,000		12,000
5440	MOTOR VEHICLES	15,180		15,180
5530	INSURANCE	127,140		127,140
5570	CONSULTANTS	146,000		146,000
5610	POSTAGE AND FREIGHT	7,655		7,655
5810	EDUCATION & DEVELOPMENT	18,500		18,500
5910	DUES AND MEMBERSHIPS	3,600		3,600
5950	RENTS AND LEASES	10,000		10,000
5990	OTHER	19,000		19,000
Wastewater Treatment Subtotal		**5,106,124**	**-**	**5,106,124**

Water & Sewer System Expenses — Schedule 3

		FY 2016 Budget	ADJ.	FY 2016 COSA
Sewer Collection				
5010	SALARIES & WAGES - REGULAR	453,442		453,442
5020	SALARIES & WAGES - OVERTIME	23,500		23,500
5050	STANDBY PAY	9,747		9,747
5110	FICA EXPENSE	38,124		38,124
5120	RETIREMENT CONTRIBUTION	33,240		33,240
5121	DEFERRED COMPENSATION	14,560		14,560
5130	WORKERS' COMPENSATION	13,000		13,000
5140	HEALTH INSURANCE	139,144		139,144
5141	DENTAL INSURANCE	5,341		5,341
5150	DISABILITY SALARY CONTINUATION	2,209		2,209
5170	UNIFORMS	9,000		9,000
5180	GROUP LIFE & A D & D	3,013		3,013
5210	ELECTRICITY	119,759		119,759
5233	CELL PHONE STIPENDS	1,800		1,800
5240	FUEL	7,000		7,000
5250	WASTE DISPOSAL	750		750
5310	CHEMICALS	200,000		200,000
5320	SMALL TOOLS	3,500		3,500
5350	FUEL - VEHICLES	35,000		35,000
5360	OFFICE SUPPLIES	1,500		1,500
5380	SAFETY SUPPLIES	9,686		9,686
5390	OTHER - MATERIALS AND SUPPLIES	2,000		2,000
5422	MAINTENANCE - MAINS	110,000		110,000
5425	MAINTENANCE - SERVICE LINES	2,500		2,500
5440	MOTOR VEHICLES	65,000		65,000
5530	INSURANCE	8,800		8,800
5610	POSTAGE AND FREIGHT	700		700
5700	PRINTING AND REPRODUCTION	500		500
5810	EDUCATION & DEVELOPMENT	10,240		10,240
5910	DUES AND MEMBERSHIPS	2,000		2,000
5950	RENTS AND LEASES	1,500		1,500
5990	OTHER	500		500
6010	FORCE ACCOUNT - LABOR	0		-
6020	FORCE ACCOUNT - VEHICLE	0		-
Sewer Collection Subtotal		**1,327,055**	**-**	**1,327,055**

Water & Sewer System Expenses — Schedule 3

	FY 2016 Budget	ADJ.	FY 2016 COSA
Debt Service			
Series 2003	1,317,750		1,317,750
Series 2004B	200,000		200,000
Series 2005	2,770,100		2,770,100
Series 2006	785,200		785,200
Series 2010	2,439,600		2,439,600
Series 2014	700,725		700,725
Series 2005 - Forward Purchase	(125,048)		(125,048)
SRF Loan	328,000		328,000
Debt Service Subtotal	8,416,327	-	**8,416,327**
Capital Projects			
Capital Improvements Transfer	400,000		400,000
Cash Funded Capital Projects	4,989,050		4,989,050
CIP Funded from Reserve Fund	5,625,950		5,625,950
Minor Capital Equipment Not In Budget	875,000		875,000
Capital Projects Subtotal	11,890,000	-	**11,890,000**
Contribution to (Use of) Reserves			
Transfer to Rate Stabilization Fund	250,000		250,000
Cont. to R&R & Contingency Funds - RW	263,909		263,909
Contribution to (Use of) Reserves Subtotal	513,909	-	**513,909**
Total Expenditure Requirements	**41,603,694**	-	**41,603,694**

Prepared by Burton & Associates 12/3/2015

Water & Sewer System Revenues

Schedule 4

Class	Description	FY 2016 Budget	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Water Usage Revenue	Sales based on usage volume	12,972,573	Direct	100.00%	0.00%	0.00%	100.00%	12,972,573	-	-
Water Fixed Revenue	Customer and base facility charge	5,017,596	Direct	100.00%	0.00%	0.00%	100.00%	5,017,596	-	-
Sewer Usage Revenue	Sales based on usage volume	13,396,251	Direct	0.00%	100.00%	0.00%	100.00%	-	13,396,251	-
Sewer Fixed Revenue	Customer and base facility charge	3,397,864	Direct	0.00%	100.00%	0.00%	100.00%	-	3,397,864	-
Irrigation Usage Revenue	Sales based on usage volume	-	Direct	100.00%	0.00%	0.00%	100.00%	-	-	-
Irrigation Fixed Revenue	Customer and base facility charge	-	Direct	100.00%	0.00%	0.00%	100.00%	-	-	-
Other Revenue	Service Initiation Fee	158,421	Customers	51.46%	48.54%	0.00%	100.00%	81,529	76,892	-
Other Revenue	Refunds/Adjustments	(232,207)	Revenues	49.97%	48.72%	1.31%	100.00%	(116,034)	(113,138)	(3,035)
Other Revenue	Rental/Royalty Income	737,241	Revenues	49.97%	48.72%	1.31%	100.00%	368,400	359,204	9,636
Other Revenue	Fishing & Boating	61,246	Revenues	49.97%	48.72%	1.31%	100.00%	30,605	29,841	801
Other Revenue	Other	250,000	Revenues	49.97%	48.72%	1.31%	100.00%	124,925	121,807	3,268
Water Impact Fees	Water Impact Fees	419,703	Direct	100.00%	0.00%	0.00%	100.00%	419,703	-	-
Sewer Impact Fees	Sewer Impact Fees	539,879	Direct	0.00%	100.00%	0.00%	100.00%	-	539,879	-
Non-Operating Revenue	NA	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Non-Operating Revenue	NA	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Other Revenue	Reclaimed Revenue From UNC	452,250	Direct	0.00%	0.00%	100.00%	100.00%	-	-	452,250
Other Revenue	NA	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Transfers In	Grants / Reimbursements	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Irrigation Impact Fees	Irrigation Impact Fees	-	Direct	100.00%	0.00%	0.00%	100.00%	-	-	-
Transfers In	Transfers In	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Transfers In	Outside Funding for CIP	479,000	Five Year CIP	42.59%	55.58%	1.83%	100.00%	204,004	266,240	8,756
Rate Stabilization Fund	Rate Stabilization Fund	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
R&R Transfer	Renewal & Replacement	-	Assets	42.59%	55.58%	1.83%	100.00%	-	-	-
Capital Improvements	Capital Improvements	-	Five Year CIP	44.10%	55.90%	0.00%	100.00%	-	-	-
Transfers In	Use of Reserves	3,924,295	Five Year CIP	42.59%	55.58%	1.83%	100.00%	1,671,339	2,181,223	71,733
Interest	Interest Earned on Unrestricted Funds	29,583	Revenues	49.97%	48.72%	1.31%	100.00%	14,783	14,414	387
Interest	Interest Earned on Restricted Funds	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Interest	Interest Earned on Construction Fund	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Transfers In	Capitalized Interest From New Borrowing	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-
Total		**41,603,694**						**20,789,422**	**20,270,477**	**543,795**
							Revenue Allocation	50%	49%	1%

Prepared by Burton & Associates

12/3/2015

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Executive Directors Office										
SALARIES & WAGES - REGULAR	549,968	Indirect	54.39%	44.09%	1.52%	100.00%	549,968	299,103	242,490	8,375
PER DIEM	15,000	Indirect	54.39%	44.09%	1.52%	100.00%	15,000	8,158	6,614	228
FICA EXPENSE	39,972	Indirect	54.39%	44.09%	1.52%	100.00%	39,972	21,739	17,624	609
RETIREMENT CONTRIBUTION	38,024	Indirect	54.39%	44.09%	1.52%	100.00%	38,024	20,680	16,765	579
DEFERRED COMPENSATION	7,800	Indirect	54.39%	44.09%	1.52%	100.00%	7,800	4,242	3,439	119
WORKERS' COMPENSATION	12,000	Indirect	54.39%	44.09%	1.52%	100.00%	12,000	6,526	5,291	183
HEALTH INSURANCE	73,454	Indirect	54.39%	44.09%	1.52%	100.00%	73,454	39,948	32,387	1,119
DENTAL INSURANCE	3,748	Indirect	54.39%	44.09%	1.52%	100.00%	3,748	2,038	1,653	57
DISABILITY SALARY CONTINUATION	1,622	Indirect	54.39%	44.09%	1.52%	100.00%	1,622	882	715	25
AUTOMOBILE ALLOWANCE	6,000	Indirect	54.39%	44.09%	1.52%	100.00%	6,000	3,263	2,645	91
GROUP LIFE & A D & D	1,933	Indirect	54.39%	44.09%	1.52%	100.00%	1,933	1,051	852	29
ELECTRICITY	45,000	Indirect	54.39%	44.09%	1.52%	100.00%	45,000	24,474	19,841	685
CELL PHONE STIPENDS	5,000	Indirect	54.39%	44.09%	1.52%	100.00%	5,000	2,719	2,205	76
FUEL	12,000	Indirect	54.39%	44.09%	1.52%	100.00%	12,000	6,526	5,291	183
SUBSCRIPTIONS	910	Indirect	54.39%	44.09%	1.52%	100.00%	910	495	401	14
OFFICE SUPPLIES	10,900	Indirect	54.39%	44.09%	1.52%	100.00%	10,900	5,928	4,806	166
SAFETY SUPPLIES	450	Indirect	54.39%	44.09%	1.52%	100.00%	450	245	198	7
LEGAL	240,000	Indirect	54.39%	44.09%	1.52%	100.00%	240,000	130,525	105,820	3,655
INSURANCE	39,109	Indirect	54.39%	44.09%	1.52%	100.00%	39,109	21,270	17,244	596
CONSULTANTS	38,000	Indirect	54.39%	44.09%	1.52%	100.00%	38,000	20,667	16,755	579
PROFESSIONAL SERVICES - OTHERS	-	Indirect	54.39%	44.09%	1.52%	100.00%	-	-	-	-
POSTAGE AND FREIGHT	11,700	Indirect	54.39%	44.09%	1.52%	100.00%	11,700	6,363	5,159	178
CUSTOMER INFORMATION	21,635	Indirect	54.39%	44.09%	1.52%	100.00%	21,635	11,766	9,539	329
ADVERTISING	3,630	Indirect	54.39%	44.09%	1.52%	100.00%	3,630	1,974	1,601	55
OTHER	5,280	Indirect	54.39%	44.09%	1.52%	100.00%	5,280	2,872	2,328	80
PRINTING AND REPRODUCTION	1,000	Indirect	54.39%	44.09%	1.52%	100.00%	1,000	544	441	15
EDUCATION & DEVELOPMENT	13,080	Indirect	54.39%	44.09%	1.52%	100.00%	13,080	7,114	5,767	199
BOARD TRAVEL	4,500	Indirect	54.39%	44.09%	1.52%	100.00%	4,500	2,447	1,984	69
DUES AND MEMBERSHIPS	17,530	Indirect	54.39%	44.09%	1.52%	100.00%	17,530	9,534	7,729	267
CONSERVATION	25,000	Indirect	54.39%	44.09%	1.52%	100.00%	25,000	13,596	11,023	381
BOARD EXPENSE	4,500	Indirect	54.39%	44.09%	1.52%	100.00%	4,500	2,447	1,984	69
OTHER	1,550	Indirect	54.39%	44.09%	1.52%	100.00%	1,550	843	683	24
FORCE ACCOUNT - LABOR	(41,658)	Indirect	54.39%	44.09%	1.52%	100.00%	(41,658)	(22,656)	(18,368)	(634)
Executive Directors Office Subtotal	1,208,637		54.39%	44.09%	1.52%		1,208,637	657,325	532,907	18,405
Customer Services										
SALARIES & WAGES - REGULAR	392,920	Meters	54.63%	45.32%	0.05%	100.00%	392,920	214,653	178,077	190
SALARIES & WAGES - OVERTIME	3,000	Meters	54.63%	45.32%	0.05%	100.00%	3,000	1,639	1,360	1
FICA EXPENSE	31,009	Meters	54.63%	45.32%	0.05%	100.00%	31,009	16,940	14,054	15
RETIREMENT CONTRIBUTION	27,036	Meters	54.63%	45.32%	0.05%	100.00%	27,036	14,770	12,253	13
DEFERRED COMPENSATION	13,520	Meters	54.63%	45.32%	0.05%	100.00%	13,520	7,386	6,127	7
HEALTH INSURANCE	107,933	Meters	54.63%	45.32%	0.05%	100.00%	107,933	58,964	48,917	52
DENTAL INSURANCE	5,544	Meters	54.63%	45.32%	0.05%	100.00%	5,544	3,029	2,513	3
DISABILITY SALARY CONTINUATION	1,727	Meters	54.63%	45.32%	0.05%	100.00%	1,727	943	783	1
GROUP LIFE & A D & D	2,595	Meters	54.63%	45.32%	0.05%	100.00%	2,595	1,418	1,176	1
CELL PHONE STIPENDS	1,500	Meters	54.63%	45.32%	0.05%	100.00%	1,500	819	680	1
OFFICE SUPPLIES	4,000	Meters	54.63%	45.32%	0.05%	100.00%	4,000	2,185	1,813	2
COLLECTION SERVICES	45,000	Meters	54.63%	45.32%	0.05%	100.00%	45,000	24,584	20,395	22
POSTAGE AND FREIGHT	75,000	Meters	54.63%	45.32%	0.05%	100.00%	75,000	40,973	33,991	36
PRINTING AND REPRODUCTION	1,000	Meters	54.63%	45.32%	0.05%	100.00%	1,000	546	453	0
EDUCATION & DEVELOPMENT	5,000	Meters	54.63%	45.32%	0.05%	100.00%	5,000	2,732	2,266	2
OVERAGE AND SHORTAGES	-	Meters	54.63%	45.32%	0.05%	100.00%	-	-	-	-
UNCOLLECTABLE ACCOUNTS	30,000	Meters	54.63%	45.32%	0.05%	100.00%	30,000	16,389	13,596	14
Customer Services Subtotal	746,784		54.63%	45.32%	0.05%		746,784	407,971	338,453	361

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Engineering										
SALARIES & WAGES - REGULAR	1,060,949	Indirect	54.39%	44.09%	1.52%	100.00%	1,060,949	577,004	467,789	16,156
SALARIES & WAGES - OVERTIME	9,000	Indirect	54.39%	44.09%	1.52%	100.00%	9,000	4,895	3,968	137
PART TIME SUMMER	65,000	Indirect	54.39%	44.09%	1.52%	100.00%	65,000	35,351	28,660	990
FICA EXPENSE	82,411	Indirect	54.39%	44.09%	1.52%	100.00%	82,411	44,820	36,336	1,255
RETIREMENT CONTRIBUTION	71,854	Indirect	54.39%	44.09%	1.52%	100.00%	71,854	39,078	31,682	1,094
DEFERRED COMPENSATION	18,720	Indirect	54.39%	44.09%	1.52%	100.00%	18,720	10,181	8,254	285
HEALTH INSURANCE	194,251	Indirect	54.39%	44.09%	1.52%	100.00%	194,251	105,645	85,648	2,958
DENTAL INSURANCE	8,454	Indirect	54.39%	44.09%	1.52%	100.00%	8,454	4,598	3,728	129
DISABILITY SALARY CONTINUATION	4,770	Indirect	54.39%	44.09%	1.52%	100.00%	4,770	2,594	2,103	73
GROUP LIFE & A D & D	4,802	Indirect	54.39%	44.09%	1.52%	100.00%	4,802	2,612	2,117	73
CELL PHONE STIPENDS	9,200	Indirect	54.39%	44.09%	1.52%	100.00%	9,200	5,003	4,056	140
SMALL TOOLS	2,060	Indirect	54.39%	44.09%	1.52%	100.00%	2,060	1,120	908	31
SUBSCRIPTIONS	615	Indirect	54.39%	44.09%	1.52%	100.00%	615	334	271	9
FUEL - VEHICLES	7,000	Indirect	54.39%	44.09%	1.52%	100.00%	7,000	3,807	3,086	107
OFFICE SUPPLIES	3,650	Indirect	54.39%	44.09%	1.52%	100.00%	3,650	1,985	1,609	56
SAFETY SUPPLIES	2,425	Indirect	54.39%	44.09%	1.52%	100.00%	2,425	1,319	1,069	37
OTHER - MATERIALS AND SUPPLIES	1,450	Indirect	54.39%	44.09%	1.52%	100.00%	1,450	789	639	22
MOTOR VEHICLES	2,500	Indirect	54.39%	44.09%	1.52%	100.00%	2,500	1,360	1,102	38
ENGINEERING	5,000	Indirect	54.39%	44.09%	1.52%	100.00%	5,000	2,719	2,205	76
CONSULTANTS	122,500	Indirect	54.39%	44.09%	1.52%	100.00%	122,500	66,622	54,012	1,865
POSTAGE AND FREIGHT	400	Indirect	54.39%	44.09%	1.52%	100.00%	400	218	176	6
PRINTING AND REPRODUCTION	1,600	Indirect	54.39%	44.09%	1.52%	100.00%	1,600	870	705	24
EDUCATION & DEVELOPMENT	22,790	Indirect	54.39%	44.09%	1.52%	100.00%	22,790	12,394	10,048	347
DUES AND MEMBERSHIPS	3,335	Indirect	54.39%	44.09%	1.52%	100.00%	3,335	1,814	1,470	51
FOREST MANAGEMENT	10,000	Indirect	54.39%	44.09%	1.52%	100.00%	10,000	5,439	4,409	152
Engineering Subtotal	1,714,736		54.39%	44.09%	1.52%		1,714,736	932,570	756,055	26,112
Human Resources										
SALARIES & WAGES - REGULAR	195,167	FTE	60.79%	38.45%	0.77%	100.00%	195,167	118,636	75,035	1,496
SALARIES & WAGES - OVERTIME	1,000	FTE	60.79%	38.45%	0.77%	100.00%	1,000	608	384	8
FICA EXPENSE	15,313	FTE	60.79%	38.45%	0.77%	100.00%	15,313	9,308	5,887	117
RETIREMENT CONTRIBUTION	13,351	FTE	60.79%	38.45%	0.77%	100.00%	13,351	8,116	5,133	102
DEFERRED COMPENSATION	6,240	FTE	60.79%	38.45%	0.77%	100.00%	6,240	3,793	2,399	48
HEALTH INSURANCE	44,939	FTE	60.79%	38.45%	0.77%	100.00%	44,939	27,317	17,278	344
DENTAL INSURANCE	2,124	FTE	60.79%	38.45%	0.77%	100.00%	2,124	1,291	817	16
VISION INSURANCE	50,000	FTE	60.79%	38.45%	0.77%	100.00%	50,000	30,394	19,223	383
WELLNESS PROFRA REIMBURSEMENT	2,300	FTE	60.79%	38.45%	0.77%	100.00%	2,300	1,398	884	18
RETIREES & COBRA INSURANCE	176,744	FTE	60.79%	38.45%	0.77%	100.00%	176,744	107,438	67,952	1,354
DISABILITY SALARY CONTINUATION	894	FTE	60.79%	38.45%	0.77%	100.00%	894	543	344	7
UNEMPLOYMENT TAX	21,000	FTE	60.79%	38.45%	0.77%	100.00%	21,000	12,765	8,074	161
UNIFORMS	200	FTE	60.79%	38.45%	0.77%	100.00%	200	122	77	2
GROUP LIFE & A D & D	1,020	FTE	60.79%	38.45%	0.77%	100.00%	1,020	620	392	8
CELL PHONE STIPENDS	1,750	FTE	60.79%	38.45%	0.77%	100.00%	1,750	1,064	673	13
SUBSCRIPTIONS	200	FTE	60.79%	38.45%	0.77%	100.00%	200	122	77	2
OFFICE SUPPLIES	2,500	FTE	60.79%	38.45%	0.77%	100.00%	2,500	1,520	961	19
SAFETY SUPPLIES	2,500	FTE	60.79%	38.45%	0.77%	100.00%	2,500	1,520	961	19
OTHER - MATERIALS AND SUPPLIES	500	FTE	60.79%	38.45%	0.77%	100.00%	500	304	192	4
CONSULTANTS	326,000	FTE	60.79%	38.45%	0.77%	100.00%	326,000	198,166	125,336	2,498
PROFESSIONAL SERVICES - OTHERS	32,000	FTE	60.79%	38.45%	0.77%	100.00%	32,000	19,452	12,303	245
POSTAGE AND FREIGHT	3,500	FTE	60.79%	38.45%	0.77%	100.00%	3,500	2,128	1,346	27
ADVERTISING	20,000	FTE	60.79%	38.45%	0.77%	100.00%	20,000	12,157	7,689	153
PRINTING AND REPRODUCTION	800	FTE	60.79%	38.45%	0.77%	100.00%	800	486	308	6
EDUCATION & DEVELOPMENT	8,800	FTE	60.79%	38.45%	0.77%	100.00%	8,800	5,349	3,383	67
DUES AND MEMBERSHIPS	5,000	FTE	60.79%	38.45%	0.77%	100.00%	5,000	3,039	1,922	38
RECRUITMENT EXPENSE	4,000	FTE	60.79%	38.45%	0.77%	100.00%	4,000	2,431	1,538	31
OTHER	25,000	FTE	60.79%	38.45%	0.77%	100.00%	25,000	15,197	9,612	192
Human Resources Subtotal	962,842		60.79%	38.45%	0.77%		962,842	585,283	370,180	7,378

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Finance Department										
SALARIES & WAGES - REGULAR	467,351	Revenues	49.97%	48.72%	1.31%	100.00%	467,351	233,536	227,706	6,109
SALARIES & WAGES - OVERTIME	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-	-
FICA EXPENSE	35,429	Revenues	49.97%	48.72%	1.31%	100.00%	35,429	17,704	17,262	463
RETIREMENT CONTRIBUTION	32,021	Revenues	49.97%	48.72%	1.31%	100.00%	32,021	16,001	15,602	419
DEFERRED COMPENSATION	10,920	Revenues	49.97%	48.72%	1.31%	100.00%	10,920	5,457	5,321	143
HEALTH INSURANCE	79,355	Revenues	49.97%	48.72%	1.31%	100.00%	79,355	39,654	38,664	1,037
DENTAL INSURANCE	3,755	Revenues	49.97%	48.72%	1.31%	100.00%	3,755	1,876	1,830	49
DISABILITY SALARY CONTINUATION	1,908	Revenues	49.97%	48.72%	1.31%	100.00%	1,908	953	930	25
GROUP LIFE & A D & D	2,040	Revenues	49.97%	48.72%	1.31%	100.00%	2,040	1,019	994	27
CELL PHONE STIPENDS	3,250	Revenues	49.97%	48.72%	1.31%	100.00%	3,250	1,624	1,583	42
WASTE DISPOSAL	2,000	Revenues	49.97%	48.72%	1.31%	100.00%	2,000	999	974	26
OFFICE SUPPLIES	4,000	Revenues	49.97%	48.72%	1.31%	100.00%	4,000	1,999	1,949	52
OTHER - MATERIALS AND SUPPLIES	8,000	Revenues	49.97%	48.72%	1.31%	100.00%	8,000	3,998	3,898	105
ACCOUNTING	30,000	Revenues	49.97%	48.72%	1.31%	100.00%	30,000	14,991	14,617	392
CONSULTANTS	50,000	Revenues	49.97%	48.72%	1.31%	100.00%	50,000	24,985	24,361	654
FINANCIAL SERVICES	241,600	Revenues	49.97%	48.72%	1.31%	100.00%	241,600	120,728	117,714	3,158
TRUSTEE SERVICES	29,350	Revenues	49.97%	48.72%	1.31%	100.00%	29,350	14,666	14,300	384
PROFESSIONAL SERVICES - OTHERS	24,000	Revenues	49.97%	48.72%	1.31%	100.00%	24,000	11,993	11,693	314
POSTAGE AND FREIGHT	4,000	Revenues	49.97%	48.72%	1.31%	100.00%	4,000	1,999	1,949	52
PRINTING AND REPRODUCTION	3,000	Revenues	49.97%	48.72%	1.31%	100.00%	3,000	1,499	1,462	39
EDUCATION & DEVELOPMENT	9,025	Revenues	49.97%	48.72%	1.31%	100.00%	9,025	4,510	4,397	118
DUES AND MEMBERSHIPS	2,405	Revenues	49.97%	48.72%	1.31%	100.00%	2,405	1,202	1,172	31
RENTS AND LEASES	3,400	Revenues	49.97%	48.72%	1.31%	100.00%	3,400	1,699	1,657	44
OTHER	-	Revenues	49.97%	48.72%	1.31%	100.00%	-	-	-	-
Finance Department Subtotal	1,046,809		49.97%	48.72%	1.31%		1,046,809	523,092	510,034	13,683
IT Department										
SALARIES & WAGES - REGULAR	320,443	FTE	60.79%	38.45%	0.77%	100.00%	320,443	194,788	123,200	2,456
SALARIES & WAGES - OVERTIME	-	FTE	60.79%	38.45%	0.77%	100.00%	-	-	-	-
FICA EXPENSE	25,293	FTE	60.79%	38.45%	0.77%	100.00%	25,293	15,375	9,724	194
RETIREMENT CONTRIBUTION	22,053	FTE	60.79%	38.45%	0.77%	100.00%	22,053	13,405	8,479	169
DEFERRED COMPENSATION	3,120	FTE	60.79%	38.45%	0.77%	100.00%	3,120	1,897	1,200	24
HEALTH INSURANCE	58,314	FTE	60.79%	38.45%	0.77%	100.00%	58,314	35,447	22,420	447
DENTAL INSURANCE	3,025	FTE	60.79%	38.45%	0.77%	100.00%	3,025	1,839	1,163	23
DISABILITY SALARY CONTINUATION	1,413	FTE	60.79%	38.45%	0.77%	100.00%	1,413	859	543	11
GROUP LIFE & A D & D	1,378	FTE	60.79%	38.45%	0.77%	100.00%	1,378	838	530	11
TELEPHONE - LOCAL	106,960	FTE	60.79%	38.45%	0.77%	100.00%	106,960	65,018	41,123	820
CELL PHONE STIPENDS	6,000	FTE	60.79%	38.45%	0.77%	100.00%	6,000	3,647	2,307	46
OFFICE SUPPLIES	10,000	FTE	60.79%	38.45%	0.77%	100.00%	10,000	6,079	3,845	77
COMPUTER EQUIPMENT & PARTS	72,180	FTE	60.79%	38.45%	0.77%	100.00%	72,180	43,876	27,751	553
MAINTENANCE - EQUIPMENT	307,870	FTE	60.79%	38.45%	0.77%	100.00%	307,870	187,145	118,366	2,359
CONSULTANTS	125,000	FTE	60.79%	38.45%	0.77%	100.00%	125,000	75,984	48,058	958
EDUCATION & DEVELOPMENT	17,180	FTE	60.79%	38.45%	0.77%	100.00%	17,180	10,443	6,605	132
RENTS AND LEASES	40,400	FTE	60.79%	38.45%	0.77%	100.00%	40,400	24,558	15,532	310
IT Department Subtotal	1,120,629		60.79%	38.45%	0.77%		1,120,629	681,198	430,844	8,587

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Water Supply and Treatment										
SALARIES & WAGES - REGULAR	1,252,160	Water	100.00%	0.00%	0.00%	100.00%	1,252,160	1,252,160	-	-
SALARIES & WAGES - OVERTIME	66,119	Water	100.00%	0.00%	0.00%	100.00%	66,119	66,119	-	-
STANDBY PAY	4,929	Water	100.00%	0.00%	0.00%	100.00%	4,929	4,929	-	-
PART TIME SUMMER	18,800	Water	100.00%	0.00%	0.00%	100.00%	18,800	18,800	-	-
FICA EXPENSE	106,174	Water	100.00%	0.00%	0.00%	100.00%	106,174	106,174	-	-
RETIREMENT CONTRIBUTION	92,573	Water	100.00%	0.00%	0.00%	100.00%	92,573	92,573	-	-
DEFERRED COMPENSATION	28,600	Water	100.00%	0.00%	0.00%	100.00%	28,600	28,600	-	-
WORKERS' COMPENSATION	26,000	Water	100.00%	0.00%	0.00%	100.00%	26,000	26,000	-	-
HEALTH INSURANCE	299,490	Water	100.00%	0.00%	0.00%	100.00%	299,490	299,490	-	-
DENTAL INSURANCE	13,100	Water	100.00%	0.00%	0.00%	100.00%	13,100	13,100	-	-
DISABILITY SALARY CONTINUATION	5,639	Water	100.00%	0.00%	0.00%	100.00%	5,639	5,639	-	-
UNIFORMS	12,000	Water	100.00%	0.00%	0.00%	100.00%	12,000	12,000	-	-
GROUP LIFE & A D & D	7,203	Water	100.00%	0.00%	0.00%	100.00%	7,203	7,203	-	-
ELECTRICITY	231,073	Water	100.00%	0.00%	0.00%	100.00%	231,073	231,073	-	-
CELL PHONE STIPENDS	9,750	Water	100.00%	0.00%	0.00%	100.00%	9,750	9,750	-	-
FUEL	19,500	Water	100.00%	0.00%	0.00%	100.00%	19,500	19,500	-	-
WASTE DISPOSAL	80,600	Water	100.00%	0.00%	0.00%	100.00%	80,600	80,600	-	-
CHEMICALS	1,036,528	Water	100.00%	0.00%	0.00%	100.00%	1,036,528	1,036,528	-	-
SMALL TOOLS	5,000	Water	100.00%	0.00%	0.00%	100.00%	5,000	5,000	-	-
LAKE SUPPLIES	20,200	Water	100.00%	0.00%	0.00%	100.00%	20,200	20,200	-	-
FUEL - VEHICLES	27,299	Water	100.00%	0.00%	0.00%	100.00%	27,299	27,299	-	-
OFFICE SUPPLIES	3,200	Water	100.00%	0.00%	0.00%	100.00%	3,200	3,200	-	-
LABORATORY EXPENSE	71,200	Water	100.00%	0.00%	0.00%	100.00%	71,200	71,200	-	-
SAFETY SUPPLIES	8,398	Water	100.00%	0.00%	0.00%	100.00%	8,398	8,398	-	-
OTHER - MATERIALS AND SUPPLIES	5,500	Water	100.00%	0.00%	0.00%	100.00%	5,500	5,500	-	-
MAINTENANCE - EQUIPMENT	242,801	Water	100.00%	0.00%	0.00%	100.00%	242,801	242,801	-	-
MAINTENANCE - PUMPING EQUIPMENT	128,250	Water	100.00%	0.00%	0.00%	100.00%	128,250	128,250	-	-
MAINT - RESERVOIR & TANKS	142,200	Water	100.00%	0.00%	0.00%	100.00%	142,200	142,200	-	-
FACILITIES	30,300	Water	100.00%	0.00%	0.00%	100.00%	30,300	30,300	-	-
BUILDINGS	293,650	Water	100.00%	0.00%	0.00%	100.00%	293,650	293,650	-	-
MAINTENANCE - METERS	94,800	Water	100.00%	0.00%	0.00%	100.00%	94,800	94,800	-	-
MAINTENANCE - GROUNDS	82,000	Water	100.00%	0.00%	0.00%	100.00%	82,000	82,000	-	-
MOTOR VEHICLES	15,661	Water	100.00%	0.00%	0.00%	100.00%	15,661	15,661	-	-
INSURANCE	100,206	Water	100.00%	0.00%	0.00%	100.00%	100,206	100,206	-	-
CONSULTANTS	70,100	Water	100.00%	0.00%	0.00%	100.00%	70,100	70,100	-	-
PROFESSIONAL SERVICES - OTHERS	16,000	Water	100.00%	0.00%	0.00%	100.00%	16,000	16,000	-	-
POSTAGE AND FREIGHT	4,000	Water	100.00%	0.00%	0.00%	100.00%	4,000	4,000	-	-
EDUCATION & DEVELOPMENT	16,000	Water	100.00%	0.00%	0.00%	100.00%	16,000	16,000	-	-
DUES AND MEMBERSHIPS	11,090	Water	100.00%	0.00%	0.00%	100.00%	11,090	11,090	-	-
RENTS AND LEASES	2,000	Water	100.00%	0.00%	0.00%	100.00%	2,000	2,000	-	-
OTHER	1,500	Water	100.00%	0.00%	0.00%	100.00%	1,500	1,500	-	-
Water Supply and Treatment Subtotal	4,701,593		100.00%	0.00%	0.00%		4,701,593	4,701,593	-	-

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Water Distribution										
SALARIES & WAGES - REGULAR	1,322,255	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,322,255	1,306,439	-	15,816
SALARIES & WAGES - OVERTIME	41,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	41,000	40,510	-	490
STANDBY PAY	20,965	Water - FAMS	98.80%	0.00%	1.20%	100.00%	20,965	20,714	-	251
FICA EXPENSE	108,557	Water - FAMS	98.80%	0.00%	1.20%	100.00%	108,557	107,258	-	1,299
RETIREMENT CONTRIBUTION	94,650	Water - FAMS	98.80%	0.00%	1.20%	100.00%	94,650	93,518	-	1,132
DEFERRED COMPENSATION	31,720	Water - FAMS	98.80%	0.00%	1.20%	100.00%	31,720	31,341	-	379
WORKERS' COMPENSATION	22,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	22,000	21,737	-	263
HEALTH INSURANCE	403,004	Water - FAMS	98.80%	0.00%	1.20%	100.00%	403,004	398,183	-	4,821
DENTAL INSURANCE	16,871	Water - FAMS	98.80%	0.00%	1.20%	100.00%	16,871	16,669	-	202
DISABILITY SALARY CONTINUATION	7,079	Water - FAMS	98.80%	0.00%	1.20%	100.00%	7,079	6,994	-	85
UNIFORMS	21,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	21,000	20,749	-	251
GROUP LIFE & A D & D	8,818	Water - FAMS	98.80%	0.00%	1.20%	100.00%	8,818	8,713	-	105
ELECTRICITY	165,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	165,000	163,026	-	1,974
CELL PHONE STIPENDS	8,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	8,000	7,904	-	96
FUEL	5,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	5,000	4,940	-	60
WASTE DISPOSAL	500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	500	494	-	6
SMALL TOOLS	7,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	7,000	6,916	-	84
SUBSCRIPTIONS	175	Water - FAMS	98.80%	0.00%	1.20%	100.00%	175	173	-	2
FUEL - VEHICLES	68,500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	68,500	67,681	-	819
OFFICE SUPPLIES	1,500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,500	1,482	-	18
SAFETY SUPPLIES	12,798	Water - FAMS	98.80%	0.00%	1.20%	100.00%	12,798	12,645	-	153
OTHER - MATERIALS AND SUPPLIES	1,200	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,200	1,186	-	14
BUILDINGS	1,500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,500	1,482	-	18
MAINTENANCE - MAINS	297,185	Water - FAMS	98.80%	0.00%	1.20%	100.00%	297,185	293,630	-	3,555
MAINTENANCE - METERS	70,910	Water - FAMS	98.80%	0.00%	1.20%	100.00%	70,910	70,062	-	848
MAINTENANCE - HYDRANTS	30,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	30,000	29,641	-	359
MAINTENANCE - SERVICE LINES	37,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	37,000	36,557	-	443
MOTOR VEHICLES	67,685	Water - FAMS	98.80%	0.00%	1.20%	100.00%	67,685	66,875	-	810
INSURANCE	10,707	Water - FAMS	98.80%	0.00%	1.20%	100.00%	10,707	10,579	-	128
POSTAGE AND FREIGHT	1,500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,500	1,482	-	18
PRINTING AND REPRODUCTION	1,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,000	988	-	12
EDUCATION & DEVELOPMENT	12,070	Water - FAMS	98.80%	0.00%	1.20%	100.00%	12,070	11,926	-	144
DUES AND MEMBERSHIPS	1,600	Water - FAMS	98.80%	0.00%	1.20%	100.00%	1,600	1,581	-	19
RENTS AND LEASES	2,000	Water - FAMS	98.80%	0.00%	1.20%	100.00%	2,000	1,976	-	24
OTHER	500	Water - FAMS	98.80%	0.00%	1.20%	100.00%	500	494	-	6
FORCE ACCOUNT - LABOR	(53,000)	Water - FAMS	98.80%	0.00%	1.20%	100.00%	(53,000)	(52,366)	-	(634)
FORCE ACCOUNT - VEHICLE	-	Water - FAMS	98.80%	0.00%	1.20%	100.00%	-	-	-	-
Water Distribution Subtotal	2,848,249		98.80%	0.00%	1.20%		2,848,249	2,814,179	-	34,070

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Wastewater Treatment										
SALARIES & WAGES - REGULAR	1,169,976	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	1,169,976	-	1,122,341	47,635
SALARIES & WAGES - OVERTIME	60,080	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	60,080	-	57,634	2,446
STANDBY PAY	6,583	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	6,583	-	6,315	268
FICA EXPENSE	99,567	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	99,567	-	95,513	4,054
RETIREMENT CONTRIBUTION	86,812	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	86,812	-	83,277	3,535
DEFERRED COMPENSATION	31,200	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	31,200	-	29,930	1,270
WORKERS' COMPENSATION	24,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	24,000	-	23,023	977
HEALTH INSURANCE	291,731	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	291,731	-	279,853	11,878
DENTAL INSURANCE	13,301	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	13,301	-	12,759	542
DISABILITY SALARY CONTINUATION	5,574	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	5,574	-	5,347	227
UNIFORMS	12,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	12,000	-	11,511	489
GROUP LIFE & A D & D	6,563	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	6,563	-	6,296	267
ELECTRICITY	529,500	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	529,500	-	507,942	21,558
CELL PHONE STIPENDS	6,600	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	6,600	-	6,331	269
FUEL	65,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	65,000	-	62,354	2,646
WASTE DISPOSAL	562,521	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	562,521	-	539,618	22,903
CHEMICALS	695,080	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	695,080	-	666,780	28,300
LAND APPLICATION	60,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	60,000	-	57,557	2,443
SMALL TOOLS	5,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	5,000	-	4,796	204
FUEL - VEHICLES	20,107	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	20,107	-	19,288	819
OFFICE SUPPLIES	5,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	5,000	-	4,796	204
LABORATORY EXPENSE	114,900	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	114,900	-	110,222	4,678
SAFETY SUPPLIES	12,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	12,000	-	11,511	489
OTHER - MATERIALS AND SUPPLIES	5,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	5,000	-	4,796	204
MAINTENANCE - EQUIPMENT	349,954	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	349,954	-	335,706	14,248
MAINTENANCE - PUMPING EQUIPMENT	365,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	365,000	-	350,139	14,861
FACILITIES	-	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	-	-	-	-
BUILDINGS	69,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	69,000	-	66,191	2,809
MAINTENANCE - METERS	75,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	75,000	-	71,946	3,054
MAINTENANCE - GROUNDS	12,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	12,000	-	11,511	489
MOTOR VEHICLES	15,180	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	15,180	-	14,562	618
INSURANCE	127,140	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	127,140	-	121,964	5,176
CONSULTANTS	146,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	146,000	-	140,056	5,944
POSTAGE AND FREIGHT	7,655	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	7,655	-	7,343	312
EDUCATION & DEVELOPMENT	18,500	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	18,500	-	17,747	753
DUES AND MEMBERSHIPS	3,600	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	3,600	-	3,453	147
RENTS AND LEASES	10,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	10,000	-	9,593	407
OTHER	19,000	Sewer - FAMS	0.00%	95.93%	4.07%	100.00%	19,000	-	18,226	774
Wastewater Treatment Subtotal	5,106,124		0.00%	95.93%	4.07%		5,106,124	-	4,898,231	207,893

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Sewer Collection										
SALARIES & WAGES - REGULAR	453,442	Sewer	0.00%	100.00%	0.00%	100.00%	453,442	-	453,442	-
SALARIES & WAGES - OVERTIME	23,500	Sewer	0.00%	100.00%	0.00%	100.00%	23,500	-	23,500	-
STANDBY PAY	9,747	Sewer	0.00%	100.00%	0.00%	100.00%	9,747	-	9,747	-
FICA EXPENSE	38,124	Sewer	0.00%	100.00%	0.00%	100.00%	38,124	-	38,124	-
RETIREMENT CONTRIBUTION	33,240	Sewer	0.00%	100.00%	0.00%	100.00%	33,240	-	33,240	-
DEFERRED COMPENSATION	14,560	Sewer	0.00%	100.00%	0.00%	100.00%	14,560	-	14,560	-
WORKERS' COMPENSATION	13,000	Sewer	0.00%	100.00%	0.00%	100.00%	13,000	-	13,000	-
HEALTH INSURANCE	139,144	Sewer	0.00%	100.00%	0.00%	100.00%	139,144	-	139,144	-
DENTAL INSURANCE	5,341	Sewer	0.00%	100.00%	0.00%	100.00%	5,341	-	5,341	-
DISABILITY SALARY CONTINUATION	2,209	Sewer	0.00%	100.00%	0.00%	100.00%	2,209	-	2,209	-
UNIFORMS	9,000	Sewer	0.00%	100.00%	0.00%	100.00%	9,000	-	9,000	-
GROUP LIFE & A D & D	3,013	Sewer	0.00%	100.00%	0.00%	100.00%	3,013	-	3,013	-
ELECTRICITY	119,759	Sewer	0.00%	100.00%	0.00%	100.00%	119,759	-	119,759	-
CELL PHONE STIPENDS	1,800	Sewer	0.00%	100.00%	0.00%	100.00%	1,800	-	1,800	-
FUEL	7,000	Sewer	0.00%	100.00%	0.00%	100.00%	7,000	-	7,000	-
WASTE DISPOSAL	750	Sewer	0.00%	100.00%	0.00%	100.00%	750	-	750	-
CHEMICALS	200,000	Sewer	0.00%	100.00%	0.00%	100.00%	200,000	-	200,000	-
SMALL TOOLS	3,500	Sewer	0.00%	100.00%	0.00%	100.00%	3,500	-	3,500	-
FUEL - VEHICLES	35,000	Sewer	0.00%	100.00%	0.00%	100.00%	35,000	-	35,000	-
OFFICE SUPPLIES	1,500	Sewer	0.00%	100.00%	0.00%	100.00%	1,500	-	1,500	-
SAFETY SUPPLIES	9,686	Sewer	0.00%	100.00%	0.00%	100.00%	9,686	-	9,686	-
OTHER - MATERIALS AND SUPPLIES	2,000	Sewer	0.00%	100.00%	0.00%	100.00%	2,000	-	2,000	-
MAINTENANCE - MAINS	110,000	Sewer	0.00%	100.00%	0.00%	100.00%	110,000	-	110,000	-
MAINTENANCE - SERVICE LINES	2,500	Sewer	0.00%	100.00%	0.00%	100.00%	2,500	-	2,500	-
MOTOR VEHICLES	65,000	Sewer	0.00%	100.00%	0.00%	100.00%	65,000	-	65,000	-
INSURANCE	8,800	Sewer	0.00%	100.00%	0.00%	100.00%	8,800	-	8,800	-
POSTAGE AND FREIGHT	700	Sewer	0.00%	100.00%	0.00%	100.00%	700	-	700	-
PRINTING AND REPRODUCTION	500	Sewer	0.00%	100.00%	0.00%	100.00%	500	-	500	-
EDUCATION & DEVELOPMENT	10,240	Sewer	0.00%	100.00%	0.00%	100.00%	10,240	-	10,240	-
DUES AND MEMBERSHIPS	2,000	Sewer	0.00%	100.00%	0.00%	100.00%	2,000	-	2,000	-
RENTS AND LEASES	1,500	Sewer	0.00%	100.00%	0.00%	100.00%	1,500	-	1,500	-
OTHER	500	Sewer	0.00%	100.00%	0.00%	100.00%	500	-	500	-
FORCE ACCOUNT - LABOR	-	N/A	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FORCE ACCOUNT - VEHICLE	-	N/A	0.00%	0.00%	0.00%	0.00%	-	-	-	-
Sewer Collection Subtotal	1,327,055		0.00%	100.00%	0.00%		1,327,055	-	1,327,055	-

Test Year Expense Direct Allocation Between Water, Sewer and Reclaim

Schedule 5

	Test Year COS	Allocation Basis/Factor	Water % Allocation	Sewer % Allocation	Reclaim % Allocation	Total % Allocation	Total W & S & RW $ Allocation	Water $ Allocation	Sewer $ Allocation	Reclaim $ Allocation
Debt Service										
Series 2003	1,317,750	Assets Funded	79.00%	21.00%	0.00%	100.00%	1,317,750	1,041,023	276,728	-
Series 2004B	200,000	Assets Funded	7.00%	93.00%	0.00%	100.00%	200,000	14,000	186,000	-
Series 2005	2,770,100	Assets Funded	31.00%	69.00%	0.00%	100.00%	2,770,100	858,731	1,911,369	-
Series 2006	785,200	Assets Funded	80.31%	19.69%	0.00%	100.00%	785,200	630,594	154,606	-
Series 2010	2,439,600	Assets Funded	86.00%	14.00%	0.00%	100.00%	2,439,600	2,098,056	341,544	-
Series 2014	700,725	Assets Funded	80.00%	20.00%	0.00%	100.00%	700,725	560,580	140,145	-
Series 2005 - Forward Purchase	(125,048)	Assets Funded	31.00%	69.00%	0.00%	100.00%	(125,048)	(38,765)	(86,283)	-
SRF Loan	328,000	Sewer	0.00%	100.00%	0.00%	100.00%	328,000	-	328,000	-
Debt Service Subtotal	8,416,327		61.36%	38.64%	0.00%		8,416,327	5,164,219	3,252,108	-
Capital Projects										
Capital Improvements Transfer	400,000	Five Year CIP	44.10%	55.90%	0.00%	100.00%	400,000	176,391	223,609	-
Cash Funded Capital Projects	4,989,050	Five Year CIP	44.10%	55.90%	0.00%	100.00%	4,989,050	2,200,055	2,788,995	-
CIP Funded from Reserve Fund	5,625,950	FY16 CIP	21.34%	78.66%	0.00%	100.00%	5,625,950	1,200,310	4,425,640	-
Minor Capital Equipment Not In Budget	875,000	Indirect	54.39%	44.09%	1.52%	100.00%	875,000	475,874	385,802	13,324
Capital Projects Subtotal	11,890,000		34.08%	65.80%	0.11%		11,890,000	4,052,630	7,824,046	13,324
Contribution to (Use of) Reserves										
Transfer to Rate Stabilization Fund	250,000	Revenues	50.63%	49.37%	0.00%	100.00%	250,000	126,580	123,420	-
Cont. to R&R & Contingency Funds - RW	263,909	Direct	0.00%	0.00%	100.00%	100.00%	263,909	-	-	263,909
Contribution to (Use of) Reserves Subtotal	513,909		24.63%	24.02%	51.35%		513,909	126,580	123,420	263,909
Total Expenditures	**$ 41,603,694**		**49.63%**	**48.95%**	**1.43%**		**$ 41,603,694**	**$ 20,646,638**	**$ 20,363,334**	**$ 593,722**
Expenses Excluded From Indirect Allocation								49.6%	48.9%	1.4%
Debt Service and Capital								9,343,428	11,199,574	277,234
Net Expenses for Indirect Allocation	**$ 20,783,458**						**$**	**11,303,210**	**$ 9,163,760**	**$ 316,489**
% of Expenditures								54.4%	44.1%	1.5%

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Executive Directors Office													
SALARIES & WAGES - REGULAR	299,103	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	52,206	117,366	70,749	31,671	27,111
PER DIEM	8,158	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,424	3,201	1,930	864	739
FICA EXPENSE	21,739	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	3,794	8,530	5,142	2,302	1,970
RETIREMENT CONTRIBUTION	20,680	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	3,609	8,115	4,891	2,190	1,874
DEFERRED COMPENSATION	4,242	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	740	1,665	1,003	449	385
WORKERS' COMPENSATION	6,526	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,139	2,561	1,544	691	592
HEALTH INSURANCE	39,948	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	6,973	15,676	9,449	4,230	3,621
DENTAL INSURANCE	2,038	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	356	800	482	216	185
DISABILITY SALARY CONTINUATION	882	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	154	346	209	93	80
AUTOMOBILE ALLOWANCE	3,263	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	570	1,280	772	346	296
GROUP LIFE & A D & D	1,051	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	183	413	249	111	95
ELECTRICITY	24,474	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	4,272	9,603	5,789	2,591	2,218
CELL PHONE STIPENDS	2,719	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	475	1,067	643	288	246
FUEL	6,526	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,139	2,561	1,544	691	592
SUBSCRIPTIONS	495	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	86	194	117	52	45
OFFICE SUPPLIES	5,928	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,035	2,326	1,402	628	537
SAFETY SUPPLIES	245	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	43	96	58	26	22
LEGAL	130,525	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	22,782	51,217	30,874	13,821	11,831
INSURANCE	21,270	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	3,712	8,346	5,031	2,252	1,928
CONSULTANTS	20,667	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	3,607	8,109	4,888	2,188	1,873
PROFESSIONAL SERVICES - OTHERS	-	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	-	-	-	-	-
POSTAGE AND FREIGHT	6,363	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,111	2,497	1,505	674	577
CUSTOMER INFORMATION	11,766	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,054	4,617	2,783	1,246	1,067
ADVERTISING	1,974	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	345	775	467	209	179
OTHER	2,872	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	501	1,127	679	304	260
PRINTING AND REPRODUCTION	544	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	95	213	129	58	49
EDUCATION & DEVELOPMENT	7,114	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,242	2,791	1,683	753	645
BOARD TRAVEL	2,447	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	427	960	579	259	222
DUES AND MEMBERSHIPS	9,534	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,664	3,741	2,255	1,010	864
CONSERVATION	13,596	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,373	5,335	3,216	1,440	1,232
BOARD EXPENSE	2,447	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	427	960	579	259	222
OTHER	843	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	147	331	199	89	76
FORCE ACCOUNT - LABOR	(22,656)	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	(3,954)	(8,890)	(5,359)	(2,399)	(2,054)
Executive Directors Office Subtotal	**657,325**								**114,730**	**257,930**	**155,481**	**69,602**	**59,581**
Customer Services													
SALARIES & WAGES - REGULAR	214,653	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	214,653	-
SALARIES & WAGES - OVERTIME	1,639	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	1,639	-
FICA EXPENSE	16,940	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	16,940	-
RETIREMENT CONTRIBUTION	14,770	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	14,770	-
DEFERRED COMPENSATION	7,386	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	7,386	-
HEALTH INSURANCE	58,964	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	58,964	-
DENTAL INSURANCE	3,029	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	3,029	-
DISABILITY SALARY CONTINUATION	943	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	943	-
GROUP LIFE & A D & D	1,418	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	1,418	-
CELL PHONE STIPENDS	819	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	819	-
OFFICE SUPPLIES	2,185	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	2,185	-
COLLECTION SERVICES	24,584	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	24,584	-
CONSULTANTS	-	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	-	-
POSTAGE AND FREIGHT	40,973	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	40,973	-
PRINTING AND REPRODUCTION	546	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	546	-
EDUCATION & DEVELOPMENT	2,732	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	2,732	-
OVERAGE AND SHORTAGES	-	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	-	-
UNCOLLECTABLE ACCOUNTS	16,389	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	16,389	-
OTHER	-	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	-	-
Customer Services Subtotal	**407,971**								**-**	**-**	**-**	**407,971**	**-**

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Engineering													
SALARIES & WAGES - REGULAR	577,004	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	100,711	226,413	136,482	61,097	52,301
SALARIES & WAGES - OVERTIME	4,895	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	854	1,921	1,158	518	444
PART TIME SUMMER	35,351	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	6,170	13,871	8,362	3,743	3,204
FICA EXPENSE	44,820	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	7,823	17,587	10,601	4,746	4,063
RETIREMENT CONTRIBUTION	39,078	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	6,821	15,334	9,243	4,138	3,542
DEFERRED COMPENSATION	10,181	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	1,777	3,995	2,408	1,078	923
HEALTH INSURANCE	105,645	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	18,439	41,454	24,989	11,186	9,576
DENTAL INSURANCE	4,598	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	802	1,804	1,088	487	417
DISABILITY SALARY CONTINUATION	2,594	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	453	1,018	614	275	235
GROUP LIFE & A D & D	2,612	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	456	1,025	618	277	237
CELL PHONE STIPENDS	5,003	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	873	1,963	1,184	530	454
SMALL TOOLS	1,120	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	196	440	265	119	102
SUBSCRIPTIONS	334	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	58	131	79	35	30
FUEL - VEHICLES	3,807	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	664	1,494	900	403	345
OFFICE SUPPLIES	1,985	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	346	779	470	210	180
SAFETY SUPPLIES	1,319	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	230	518	312	140	120
OTHER - MATERIALS AND SUPPLIES	789	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	138	309	187	84	71
MOTOR VEHICLES	1,360	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	237	534	322	144	123
ENGINEERING	2,719	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	475	1,067	643	288	246
CONSULTANTS	66,622	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	11,628	26,142	15,759	7,054	6,039
POSTAGE AND FREIGHT	218	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	38	85	51	23	20
PRINTING AND REPRODUCTION	870	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	152	341	206	92	79
EDUCATION & DEVELOPMENT	12,394	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,163	4,864	2,932	1,312	1,123
DUES AND MEMBERSHIPS	1,814	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	317	712	429	192	164
FOREST MANAGEMENT	5,439	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	949	2,134	1,286	576	493
OTHER	-	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	-	-	-	-	-
Engineering Subtotal	**932,570**								**162,772**	**365,935**	**220,586**	**98,747**	**84,530**
Human Resources													
SALARIES & WAGES - REGULAR	118,636	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	7,779	39,870	62,235	8,752	-
SALARIES & WAGES - OVERTIME	608	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	40	204	319	45	-
FICA EXPENSE	9,308	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	610	3,128	4,883	687	-
RETIREMENT CONTRIBUTION	8,116	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	532	2,727	4,257	599	-
DEFERRED COMPENSATION	3,793	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	249	1,275	1,990	280	-
HEALTH INSURANCE	27,317	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	1,791	9,180	14,330	2,015	-
DENTAL INSURANCE	1,291	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	85	434	677	95	-
VISION INSURANCE	30,394	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	1,993	10,214	15,944	2,242	-
WELLNESS PROFRA REIMBURSEMENT	1,398	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	92	470	733	103	-
RETIREES & COBRA INSURANCE	107,438	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	7,045	36,106	56,361	7,926	-
DISABILITY SALARY CONTINUATION	543	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	36	183	285	40	-
UNEMPLOYMENT TAX	12,765	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	837	4,290	6,697	942	-
UNIFORMS	122	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	8	41	64	9	-
GROUP LIFE & A D & D	620	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	41	208	325	46	-
CELL PHONE STIPENDS	1,064	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	70	357	558	78	-
SUBSCRIPTIONS	122	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	8	41	64	9	-
OFFICE SUPPLIES	1,520	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	100	511	797	112	-
SAFETY SUPPLIES	1,520	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	100	511	797	112	-
OTHER - MATERIALS AND SUPPLIES	304	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	20	102	159	22	-
CONSULTANTS	198,166	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	12,994	66,597	103,956	14,619	-
PROFESSIONAL SERVICES - OTHERS	19,452	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	1,276	6,537	10,204	1,435	-
POSTAGE AND FREIGHT	2,128	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	140	715	1,116	157	-
ADVERTISING	12,157	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	797	4,086	6,378	897	-
PRINTING AND REPRODUCTION	486	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	32	163	255	36	-
EDUCATION & DEVELOPMENT	5,349	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	351	1,798	2,806	395	-
DUES AND MEMBERSHIPS	3,039	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	199	1,021	1,594	224	-
RECRUITMENT EXPENSE	2,431	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	159	817	1,276	179	-
OTHER	15,197	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	997	5,107	7,972	1,121	-
Human Resources Subtotal	**585,283**								**38,379**	**196,694**	**307,034**	**43,177**	**-**

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Finance Department													
SALARIES & WAGES - REGULAR	233,536	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	40,762	91,638	55,240	24,728	21,168
SALARIES & WAGES - OVERTIME	-	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	-	-	-	-	-
FICA EXPENSE	17,704	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	3,090	6,947	4,188	1,875	1,605
RETIREMENT CONTRIBUTION	16,001	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,793	6,279	3,785	1,694	1,450
DEFERRED COMPENSATION	5,457	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	952	2,141	1,291	578	495
HEALTH INSURANCE	39,654	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	6,921	15,560	9,380	4,199	3,594
DENTAL INSURANCE	1,876	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	328	736	444	199	170
DISABILITY SALARY CONTINUATION	953	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	166	374	226	101	86
GROUP LIFE & A D & D	1,019	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	178	400	241	108	92
CELL PHONE STIPENDS	1,624	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	283	637	384	172	147
WASTE DISPOSAL	999	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	174	392	236	106	91
OFFICE SUPPLIES	1,999	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	349	784	473	212	181
OTHER - MATERIALS AND SUPPLIES	3,998	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	698	1,569	946	423	362
ACCOUNTING	14,991	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,617	5,882	3,546	1,587	1,359
CONSULTANTS	24,985	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	4,361	9,804	5,910	2,646	2,265
FINANCIAL SERVICES	120,728	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	21,072	47,373	28,556	12,784	10,943
TRUSTEE SERVICES	14,666	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,560	5,755	3,469	1,553	1,329
PROFESSIONAL SERVICES - OTHERS	11,993	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	2,093	4,706	2,837	1,270	1,087
POSTAGE AND FREIGHT	1,999	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	349	784	473	212	181
PRINTING AND REPRODUCTION	1,499	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	262	588	355	159	136
EDUCATION & DEVELOPMENT	4,510	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	787	1,770	1,067	478	409
DUES AND MEMBERSHIPS	1,202	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	210	472	284	127	109
RENTS AND LEASES	1,699	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	297	667	402	180	154
OTHER	-	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	-	-	-	-	-
Finance Department Subtotal	**523,092**								**91,301**	**205,258**	**123,730**	**55,389**	**47,414**
IT Department													
SALARIES & WAGES - REGULAR	194,788	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	12,773	65,462	102,184	14,370	-
SALARIES & WAGES - OVERTIME	-	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	-	-	-	-	-
FICA EXPENSE	15,375	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	1,008	5,167	8,066	1,134	-
RETIREMENT CONTRIBUTION	13,405	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	879	4,505	7,032	989	-
DEFERRED COMPENSATION	1,897	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	124	637	995	140	-
HEALTH INSURANCE	35,447	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	2,324	11,913	18,595	2,615	-
DENTAL INSURANCE	1,839	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	121	618	965	136	-
DISABILITY SALARY CONTINUATION	859	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	56	289	451	63	-
GROUP LIFE & A D & D	838	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	55	282	439	62	-
TELEPHONE - LOCAL	65,018	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	4,263	21,850	34,108	4,796	-
CELL PHONE STIPENDS	3,647	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	239	1,226	1,913	269	-
OFFICE SUPPLIES	6,079	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	399	2,043	3,189	448	-
COMPUTER EQUIPMENT & PARTS	43,876	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	2,877	14,745	23,017	3,237	-
MAINTENANCE - EQUIPMENT	187,145	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	12,272	62,893	98,175	13,806	-
CONSULTANTS	75,984	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	4,983	25,536	39,860	5,605	-
EDUCATION & DEVELOPMENT	10,443	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	685	3,510	5,478	770	-
RENTS AND LEASES	24,558	FTE	6.56%	33.61%	52.46%	7.38%	0.00%	100.00%	1,610	8,253	12,883	1,812	-
IT Department Subtotal	**681,198**								**44,669**	**228,927**	**357,350**	**50,252**	**-**

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Water Supply and Treatment													
SALARIES & WAGES - REGULAR	1,252,160	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	204,434	1,047,726	-	-	-
SALARIES & WAGES - OVERTIME	66,119	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	10,795	55,324	-	-	-
STANDBY PAY	4,929	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	805	4,124	-	-	-
PART TIME SUMMER	18,800	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	3,069	15,731	-	-	-
FICA EXPENSE	106,174	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	17,335	88,839	-	-	-
RETIREMENT CONTRIBUTION	92,573	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	15,114	77,459	-	-	-
DEFERRED COMPENSATION	28,600	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	4,669	23,931	-	-	-
WORKERS' COMPENSATION	26,000	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	4,245	21,755	-	-	-
HEALTH INSURANCE	299,490	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	48,896	250,594	-	-	-
DENTAL INSURANCE	13,100	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	2,139	10,961	-	-	-
DISABILITY SALARY CONTINUATION	5,639	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	921	4,718	-	-	-
UNIFORMS	12,000	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	1,959	10,041	-	-	-
GROUP LIFE & A D & D	7,203	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	1,176	6,027	-	-	-
ELECTRICITY	231,073	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	231,073	-	-	-
CELL PHONE STIPENDS	9,750	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	1,592	8,158	-	-	-
FUEL	19,500	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	19,500	-	-	-
WASTE DISPOSAL	80,600	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	80,600	-	-	-
CHEMICALS	1,036,528	Supply	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	1,036,528	-	-	-	-
SMALL TOOLS	5,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	5,000	-	-	-
LAKE SUPPLIES	20,200	Supply	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	20,200	-	-	-	-
FUEL - VEHICLES	27,299	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	27,299	-	-	-
OFFICE SUPPLIES	3,200	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	522	2,678	-	-	-
LABORATORY EXPENSE	71,200	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	71,200	-	-	-
SAFETY SUPPLIES	8,398	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	8,398	-	-	-
OTHER - MATERIALS AND SUPPLIES	5,500	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	5,500	-	-	-
MAINTENANCE - EQUIPMENT	242,801	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	242,801	-	-	-
MAINTENANCE - PUMPING EQUIPMENT	128,250	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	128,250	-	-	-
MAINT - RESERVOIR & TANKS	142,200	Supply	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	142,200	-	-	-	-
FACILITIES	30,300	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	30,300	-	-	-
BUILDINGS	293,650	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	293,650	-	-	-
MAINTENANCE - METERS	94,800	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	94,800	-	-	-
MAINTENANCE - GROUNDS	82,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	82,000	-	-	-
MOTOR VEHICLES	15,661	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	15,661	-	-	-
INSURANCE	100,206	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	100,206	-	-	-
CONSULTANTS	70,100	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	70,100	-	-	-
PROFESSIONAL SERVICES - OTHERS	16,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	16,000	-	-	-
POSTAGE AND FREIGHT	4,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	4,000	-	-	-
EDUCATION & DEVELOPMENT	16,000	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	2,612	13,388	-	-	-
DUES AND MEMBERSHIPS	11,090	FTE	16.33%	83.67%	0.00%	0.00%	0.00%	100.00%	1,811	9,279	-	-	-
RENTS AND LEASES	2,000	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	2,000	-	-	-
OTHER	1,500	Treatment	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	-	1,500	-	-	-
Water Supply and Treatment Subtotal	**4,701,593**								**1,521,022**	**3,180,571**	**-**	**-**	**-**

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Water Distribution													
SALARIES & WAGES - REGULAR	1,306,439	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	685,880	228,627	391,932
SALARIES & WAGES - OVERTIME	40,510	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	21,268	7,089	12,153
STANDBY PAY	20,714	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	10,875	3,625	6,214
FICA EXPENSE	107,258	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	56,311	18,770	32,178
RETIREMENT CONTRIBUTION	93,518	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	49,097	16,366	28,055
DEFERRED COMPENSATION	31,341	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	16,454	5,485	9,402
WORKERS' COMPENSATION	21,737	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	11,412	3,804	6,521
HEALTH INSURANCE	398,183	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	209,046	69,682	119,455
DENTAL INSURANCE	16,669	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	8,751	2,917	5,001
DISABILITY SALARY CONTINUATION	6,994	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	3,672	1,224	2,098
UNIFORMS	20,749	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	10,893	3,631	6,225
GROUP LIFE & A D & D	8,713	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	4,574	1,525	2,614
ELECTRICITY	163,026	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	114,118	-	48,908
CELL PHONE STIPENDS	7,904	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	5,533	-	2,371
FUEL	4,940	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	3,458	-	1,482
WASTE DISPOSAL	494	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	346	-	148
SMALL TOOLS	6,916	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	4,841	-	2,075
SUBSCRIPTIONS	173	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	121	-	52
FUEL - VEHICLES	67,681	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	47,376	-	20,304
OFFICE SUPPLIES	1,482	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	1,037	-	445
SAFETY SUPPLIES	12,645	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	8,851	-	3,793
OTHER - MATERIALS AND SUPPLIES	1,186	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	830	-	356
BUILDINGS	1,482	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	1,037	-	445
MAINTENANCE - MAINS	293,630	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	205,541	-	88,089
MAINTENANCE - METERS	70,062	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	70,062	-
MAINTENANCE - HYDRANTS	29,641	Fire Protection	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%	-	-	-	-	29,641
MAINTENANCE - SERVICE LINES	36,557	Meter / Services	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	36,557	-
MOTOR VEHICLES	66,875	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	46,813	-	20,063
INSURANCE	10,579	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	7,405	-	3,174
POSTAGE AND FREIGHT	1,482	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	1,037	-	445
PRINTING AND REPRODUCTION	988	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	692	-	296
EDUCATION & DEVELOPMENT	11,926	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	6,261	2,087	3,578
DUES AND MEMBERSHIPS	1,581	FTE	0.00%	0.00%	52.50%	17.50%	30.00%	100.00%	-	-	830	277	474
RENTS AND LEASES	1,976	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	1,383	-	593
OTHER	494	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	346	-	148
FORCE ACCOUNT - LABOR	(52,366)	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	(36,656)	-	(15,710)
FORCE ACCOUNT - VEHICLE	-	Distribution	0.00%	0.00%	70.00%	0.00%	30.00%	100.00%	-	-	-	-	-
Water Distribution Subtotal	**2,814,179**								**-**	**-**	**1,509,435**	**471,727**	**833,017**
Wastewater Treatment													
SALARIES & WAGES - REGULAR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SALARIES & WAGES - OVERTIME	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
STANDBY PAY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FICA EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
RETIREMENT CONTRIBUTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DEFERRED COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
WORKERS' COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
HEALTH INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DENTAL INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DISABILITY SALARY CONTINUATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
UNIFORMS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
GROUP LIFE & A D & D	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
ELECTRICITY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
CELL PHONE STIPENDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FUEL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
WASTE DISPOSAL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
CHEMICALS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
LAND APPLICATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SMALL TOOLS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FUEL - VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
OFFICE SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
LABORATORY EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SAFETY SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
OTHER - MATERIALS AND SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - EQUIPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - PUMPING EQUIPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FACILITIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
BUILDINGS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - METERS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - GROUNDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MOTOR VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
CONSULTANTS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
POSTAGE AND FREIGHT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
EDUCATION & DEVELOPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DUES AND MEMBERSHIPS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
RENTS AND LEASES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
OTHER	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Wastewater Treatment Subtotal	-								-	-	-	-	-
Sewer Collection													
SALARIES & WAGES - REGULAR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SALARIES & WAGES - OVERTIME	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
STANDBY PAY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FICA EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
RETIREMENT CONTRIBUTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DEFERRED COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
WORKERS' COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
HEALTH INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DENTAL INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DISABILITY SALARY CONTINUATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
UNIFORMS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
GROUP LIFE & A D & D	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
ELECTRICITY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
CELL PHONE STIPENDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FUEL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
WASTE DISPOSAL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
CHEMICALS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SMALL TOOLS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FUEL - VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
OFFICE SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
SAFETY SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
OTHER - MATERIALS AND SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - MAINS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MAINTENANCE - SERVICE LINES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
MOTOR VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
POSTAGE AND FREIGHT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
PRINTING AND REPRODUCTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
EDUCATION & DEVELOPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
DUES AND MEMBERSHIPS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
RENTS AND LEASES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
OTHER	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FORCE ACCOUNT - LABOR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
FORCE ACCOUNT - VEHICLE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-
Sewer Collection Subtotal	-								-	-	-	-	-

Water System Operating & Debt Service Expense Allocation to Functions

Schedule 6

	Test Year COS	Allocation Basis/Factor	Supply % Allocation	Treatment % Allocation	Distribution % Allocation	Meters/Services % Allocation	Fire Protection % Allocation	Total % Allocation	Supply $ Allocation	Treatment $ Allocation	Distribution $ Allocation	Meters/Services $ Allocation	Fire Protection $ Allocation
Debt Service													
Series 2003	1,041,023	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	264,342	662,761	97,085	9,070	7,764
Series 2004B	14,000	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	3,555	8,913	1,306	122	104
Series 2005	858,731	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	218,054	546,706	80,085	7,482	6,405
Series 2006	630,594	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	160,124	401,464	58,809	5,494	4,703
Series 2010	2,098,056	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	532,750	1,335,714	195,664	18,280	15,648
Series 2014	560,580	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	142,346	356,890	52,279	4,884	4,181
Series 2005 - Forward Purchase	(38,765)	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	(9,843)	(24,679)	(3,615)	(338)	(289)
SRF Loan	-	Assets Funded	25.39%	63.66%	9.33%	0.87%	0.75%	100.00%	-	-	-	-	-
Debt Service Subtotal	**5,164,219**								**1,311,328**	**3,287,768**	**481,612**	**44,994**	**38,516**
Capital Projects													
Capital Improvements Transfer	176,391	Five Year CIP	7.12%	17.36%	75.52%	0.00%	0.00%	100.00%	12,561	30,625	133,204	-	-
Cash Funded Capital Projects	2,200,055	Five Year CIP	7.12%	17.36%	75.52%	0.00%	0.00%	100.00%	156,674	381,972	1,661,409	-	-
CIP Funded from Reserve Fund	1,200,310	Five Year CIP	7.12%	17.36%	75.52%	0.00%	0.00%	100.00%	85,478	208,397	906,435	-	-
Minor Capital Equipment Not In Budget	475,874	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	83,059	186,730	112,561	50,389	43,134
Capital Projects Subtotal	**4,052,630**								**337,773**	**807,725**	**2,813,609**	**50,389**	**43,134**
Contribution to (Use of) Reserves													
Transfer to Rate Stabilization Fund	126,580	Indirect	17.45%	39.24%	23.65%	10.59%	9.06%	100.00%	22,093	49,669	29,941	13,403	11,473
Cont. to R&R & Contingency Funds - RW	-	Assets	0.00%	42.43%	55.56%	2.01%	0.00%	100.00%	-	-	-	-	-
Contribution to (Use of) Reserves Subtotal	**126,580**								**22,093**	**49,669**	**29,941**	**13,403**	**11,473**
TOTAL EXPENDITURES	**20,646,638**								**3,644,067**	**8,580,477**	**5,998,778**	**1,305,651**	**1,117,665**
% Allocation									17.65%	41.56%	29.06%	6.32%	5.41%
Expenses Excluded From Indirect Allocation													
Debt Service	9,343,428								1,671,194	4,145,162	3,325,162	108,786	93,123
Net Expenses for Indirect Allocation	11,303,210								1,972,873	4,435,315	2,673,616	1,196,865	1,024,541
% of Expenditures							(Basis of Indirect Allocations ->)		17.45%	39.24%	23.65%	10.59%	9.06%

Prepared by Burton & Associates

12/3/2015

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Executive Directors Office											
SALARIES & WAGES - REGULAR	242,490	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	14,792	52,135	151,071	24,491
PER DIEM	6,614	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	403	1,422	4,120	668
FICA EXPENSE	17,624	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,075	3,789	10,980	1,780
RETIREMENT CONTRIBUTION	16,765	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,023	3,605	10,445	1,693
DEFERRED COMPENSATION	3,439	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	210	739	2,143	347
WORKERS' COMPENSATION	5,291	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	323	1,138	3,296	534
HEALTH INSURANCE	32,387	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,976	6,963	20,177	3,271
DENTAL INSURANCE	1,653	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	101	355	1,030	167
DISABILITY SALARY CONTINUATION	715	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	44	154	446	72
AUTOMOBILE ALLOWANCE	2,645	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	161	569	1,648	267
GROUP LIFE & A D & D	852	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	52	183	531	86
ELECTRICITY	19,841	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,210	4,266	12,361	2,004
CELL PHONE STIPENDS	2,205	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	134	474	1,373	223
FUEL	5,291	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	323	1,138	3,296	534
SUBSCRIPTIONS	401	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	24	86	250	41
OFFICE SUPPLIES	4,806	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	293	1,033	2,994	485
SAFETY SUPPLIES	198	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	12	43	124	20
LEGAL	105,820	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	6,455	22,751	65,926	10,688
INSURANCE	17,244	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,052	3,707	10,743	1,742
CONSULTANTS	16,755	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,022	3,602	10,438	1,692
PROFESSIONAL SERVICES - OTHERS	-	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	-	-	-	-
POSTAGE AND FREIGHT	5,159	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	315	1,109	3,214	521
CUSTOMER INFORMATION	9,539	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	582	2,051	5,943	963
ADVERTISING	1,601	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	98	344	997	162
OTHER	2,328	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	142	501	1,450	235
PRINTING AND REPRODUCTION	441	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	27	95	275	45
EDUCATION & DEVELOPMENT	5,767	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	352	1,240	3,593	582
BOARD TRAVEL	1,984	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	121	427	1,236	200
DUES AND MEMBERSHIPS	7,729	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	471	1,662	4,815	781
CONSERVATION	11,023	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	672	2,370	6,867	1,113
BOARD EXPENSE	1,984	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	121	427	1,236	200
OTHER	683	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	42	147	426	69
FORCE ACCOUNT - LABOR	(18,368)	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	(1,120)	(3,949)	(11,443)	(1,855)
Executive Directors Office Subtotal	**532,907**							**32,507**	**114,575**	**332,001**	**53,824**
Customer Services											
SALARIES & WAGES - REGULAR	178,077	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	178,077	-	-	-
SALARIES & WAGES - OVERTIME	1,360	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	1,360	-	-	-
FICA EXPENSE	14,054	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	14,054	-	-	-
RETIREMENT CONTRIBUTION	12,253	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	12,253	-	-	-
DEFERRED COMPENSATION	6,127	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	6,127	-	-	-
HEALTH INSURANCE	48,917	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	48,917	-	-	-
DENTAL INSURANCE	2,513	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	2,513	-	-	-
DISABILITY SALARY CONTINUATION	783	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	783	-	-	-
GROUP LIFE & A D & D	1,176	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	1,176	-	-	-
CELL PHONE STIPENDS	680	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	680	-	-	-
OFFICE SUPPLIES	1,813	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	1,813	-	-	-
COLLECTION SERVICES	20,395	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	20,395	-	-	-
POSTAGE AND FREIGHT	33,991	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	33,991	-	-	-
PRINTING AND REPRODUCTION	453	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	453	-	-	-
EDUCATION & DEVELOPMENT	2,266	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	2,266	-	-	-
UNCOLLECTABLE ACCOUNTS	13,596	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	13,596	-	-	-
Customer Services Subtotal	**338,453**							**338,453**	**-**	**-**	**-**

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Engineering											
SALARIES & WAGES - REGULAR	467,789	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	28,535	100,575	291,433	47,247
SALARIES & WAGES - OVERTIME	3,968	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	242	853	2,472	401
PART TIME SUMMER	28,660	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,748	6,162	17,855	2,895
FICA EXPENSE	36,336	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	2,217	7,812	22,638	3,670
RETIREMENT CONTRIBUTION	31,682	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,933	6,812	19,738	3,200
DEFERRED COMPENSATION	8,254	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	503	1,775	5,142	834
HEALTH INSURANCE	85,648	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	5,225	18,414	53,359	8,650
DENTAL INSURANCE	3,728	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	227	801	2,322	376
DISABILITY SALARY CONTINUATION	2,103	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	128	452	1,310	212
GROUP LIFE & A D & D	2,117	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	129	455	1,319	214
CELL PHONE STIPENDS	4,056	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	247	872	2,527	410
SMALL TOOLS	908	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	55	195	566	92
SUBSCRIPTIONS	271	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	17	58	169	27
FUEL - VEHICLES	3,086	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	188	664	1,923	312
OFFICE SUPPLIES	1,609	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	98	346	1,003	163
SAFETY SUPPLIES	1,069	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	65	230	666	108
OTHER - MATERIALS AND SUPPLIES	639	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	39	137	398	65
MOTOR VEHICLES	1,102	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	67	237	687	111
ENGINEERING	2,205	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	134	474	1,373	223
CONSULTANTS	54,012	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	3,295	11,613	33,650	5,455
POSTAGE AND FREIGHT	176	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	11	38	110	18
PRINTING AND REPRODUCTION	705	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	43		440	71
EDUCATION & DEVELOPMENT	10,048	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	613	2,160	6,260	1,015
DUES AND MEMBERSHIPS	1,470	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	90	316	916	149
FOREST MANAGEMENT	4,409	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	269	948	2,747	445
Engineering Subtotal	**756,055**							**46,119**	**162,400**	**471,022**	**76,362**
Human Resources											
SALARIES & WAGES - REGULAR	75,035	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	9,931	24,276	38,621	2,207
SALARIES & WAGES - OVERTIME	384	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	51	124	198	11
FICA EXPENSE	5,887	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	779	1,905	3,030	173
RETIREMENT CONTRIBUTION	5,133	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	679	1,661	2,642	151
DEFERRED COMPENSATION	2,399	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	318	776	1,235	71
HEALTH INSURANCE	17,278	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	2,287	5,590	8,893	508
DENTAL INSURANCE	817	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	108	264	420	24
VISION INSURANCE	19,223	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	2,544	6,219	9,894	565
WELLNESS PROFRA REIMBURSEMENT	884	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	117	286	455	26
RETIREES & COBRA INSURANCE	67,952	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	8,994	21,985	34,975	1,999
DISABILITY SALARY CONTINUATION	344	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	45	111	177	10
UNEMPLOYMENT TAX	8,074	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,069	2,612	4,156	237
UNIFORMS	77	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	10	25	40	2
GROUP LIFE & A D & D	392	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	52	127	202	12
CELL PHONE STIPENDS	673	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	89	218	346	20
SUBSCRIPTIONS	77	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	10	25	40	2
OFFICE SUPPLIES	961	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	127	311	495	28
SAFETY SUPPLIES	961	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	127	311	495	28
OTHER - MATERIALS AND SUPPLIES	192	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	25	62	99	6
CONSULTANTS	125,336	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	16,589	40,550	64,511	3,686
PROFESSIONAL SERVICES - OTHERS	12,303	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,628	3,980	6,332	362
POSTAGE AND FREIGHT	1,346	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	178	435	693	40
ADVERTISING	7,689	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,018	2,488	3,958	226
PRINTING AND REPRODUCTION	308	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	41	100	158	9
EDUCATION & DEVELOPMENT	3,383	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	448	1,095	1,741	100
DUES AND MEMBERSHIPS	1,922	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	254	622	989	57
RECRUITMENT EXPENSE	1,538	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	204	498	792	45
OTHER	9,612	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,272	3,110	4,947	283
Human Resources Subtotal	**370,180**							**48,994**	**119,764**	**190,534**	**10,888**

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Finance Department											
SALARIES & WAGES - REGULAR	227,706	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	13,890	48,957	141,861	22,998
SALARIES & WAGES - OVERTIME	-	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	-	-	-	-
FICA EXPENSE	17,262	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,053	3,711	10,754	1,743
RETIREMENT CONTRIBUTION	15,602	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	952	3,354	9,720	1,576
DEFERRED COMPENSATION	5,321	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	325	1,144	3,315	537
HEALTH INSURANCE	38,664	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	2,359	8,313	24,088	3,905
DENTAL INSURANCE	1,830	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	112	393	1,140	185
DISABILITY SALARY CONTINUATION	930	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	57	200	579	94
GROUP LIFE & A D & D	994	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	61	214	619	100
CELL PHONE STIPENDS	1,583	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	97	340	987	160
WASTE DISPOSAL	974	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	59	210	607	98
OFFICE SUPPLIES	1,949	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	119	419	1,214	197
OTHER - MATERIALS AND SUPPLIES	3,898	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	238	838	2,428	394
ACCOUNTING	14,617	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	892	3,143	9,106	1,476
CONSULTANTS	24,361	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	1,486	5,238	15,177	2,461
FINANCIAL SERVICES	117,714	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	7,181	25,309	73,336	11,889
TRUSTEE SERVICES	14,300	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	872	3,075	8,909	1,444
PROFESSIONAL SERVICES - OTHERS	11,693	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	713	2,514	7,285	1,181
POSTAGE AND FREIGHT	1,949	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	119	419	1,214	197
PRINTING AND REPRODUCTION	1,462	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	89	314	911	148
EDUCATION & DEVELOPMENT	4,397	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	268	945	2,739	444
DUES AND MEMBERSHIPS	1,172	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	71	252	730	118
RENTS AND LEASES	1,657	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	101	356	1,032	167
OTHER	-	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	-	-	-	-
Finance Department Subtotal	**510,034**							**31,112**	**109,657**	**317,751**	**51,513**
IT Department											
SALARIES & WAGES - REGULAR	123,200	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	16,306	39,859	63,412	3,624
SALARIES & WAGES - OVERTIME	-	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	-	-	-	-
FICA EXPENSE	9,724	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,287	3,146	5,005	286
RETIREMENT CONTRIBUTION	8,479	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	1,122	2,743	4,364	249
DEFERRED COMPENSATION	1,200	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	159	388	617	35
HEALTH INSURANCE	22,420	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	2,967	7,253	11,540	659
DENTAL INSURANCE	1,163	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	154	376	599	34
DISABILITY SALARY CONTINUATION	543	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	72	176	280	16
GROUP LIFE & A D & D	530	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	70	171	273	16
TELEPHONE - LOCAL	41,123	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	5,443	13,304	21,166	1,209
CELL PHONE STIPENDS	2,307	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	305	746	1,187	68
OFFICE SUPPLIES	3,845	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	509	1,244	1,979	113
COMPUTER EQUIPMENT & PARTS	27,751	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	3,673	8,978	14,283	816
MAINTENANCE - EQUIPMENT	118,366	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	15,666	38,295	60,924	3,481
CONSULTANTS	48,058	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	6,361	15,548	24,736	1,413
EDUCATION & DEVELOPMENT	6,605	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	874	2,137	3,400	194
RENTS AND LEASES	15,532	FTE	13.24%	32.35%	51.47%	2.94%	100.00%	2,056	5,025	7,995	457
IT Department Subtotal	**430,844**							**57,024**	**139,391**	**221,758**	**12,672**

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Water Supply and Treatment											
SALARIES & WAGES - REGULAR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SALARIES & WAGES - OVERTIME	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
STANDBY PAY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
PART TIME SUMMER	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FICA EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
RETIREMENT CONTRIBUTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DEFERRED COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
WORKERS' COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
HEALTH INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DENTAL INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DISABILITY SALARY CONTINUATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
UNIFORMS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
GROUP LIFE & A D & D	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
ELECTRICITY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
CELL PHONE STIPENDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FUEL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
WASTE DISPOSAL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
CHEMICALS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SMALL TOOLS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
LAKE SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FUEL - VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OFFICE SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
LABORATORY EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SAFETY SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OTHER - MATERIALS AND SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - EQUIPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - PUMPING EQUIPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINT - RESERVOIR & TANKS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FACILITIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
BUILDINGS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - METERS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - GROUNDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MOTOR VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
CONSULTANTS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
PROFESSIONAL SERVICES - OTHERS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
POSTAGE AND FREIGHT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
EDUCATION & DEVELOPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DUES AND MEMBERSHIPS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
RENTS AND LEASES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OTHER	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
Water Supply and Treatment Subtotal	**-**							**-**	**-**	**-**	**-**

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Water Distribution											
SALARIES & WAGES - REGULAR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SALARIES & WAGES - OVERTIME	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
STANDBY PAY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FICA EXPENSE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
RETIREMENT CONTRIBUTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DEFERRED COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
WORKERS' COMPENSATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
HEALTH INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DENTAL INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DISABILITY SALARY CONTINUATION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
UNIFORMS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
GROUP LIFE & A D & D	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
ELECTRICITY	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
CELL PHONE STIPENDS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FUEL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
WASTE DISPOSAL	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SMALL TOOLS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SUBSCRIPTIONS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FUEL - VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OFFICE SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
SAFETY SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OTHER - MATERIALS AND SUPPLIES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
BUILDINGS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - MAINS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - METERS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - HYDRANTS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MAINTENANCE - SERVICE LINES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
MOTOR VEHICLES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
INSURANCE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
POSTAGE AND FREIGHT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
PRINTING AND REPRODUCTION	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
EDUCATION & DEVELOPMENT	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
DUES AND MEMBERSHIPS	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
RENTS AND LEASES	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
OTHER	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FORCE ACCOUNT - LABOR	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
FORCE ACCOUNT - VEHICLE	-	N/A	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
Water Distribution Subtotal	-							-	-	-	-
Wastewater Treatment											
SALARIES & WAGES - REGULAR	1,122,341	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	1,061,674	60,667
SALARIES & WAGES - OVERTIME	57,634	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	54,519	3,115
STANDBY PAY	6,315	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	5,974	341
FICA EXPENSE	95,513	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	90,350	5,163
RETIREMENT CONTRIBUTION	83,277	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	78,776	4,501
DEFERRED COMPENSATION	29,930	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	28,312	1,618
WORKERS' COMPENSATION	23,023	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	21,778	1,244
HEALTH INSURANCE	279,853	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	264,726	15,127
DENTAL INSURANCE	12,759	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	12,070	690
DISABILITY SALARY CONTINUATION	5,347	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	5,058	289
UNIFORMS	11,511	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	10,889	622
GROUP LIFE & A D & D	6,296	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	5,955	340
ELECTRICITY	507,942	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	507,942	-
CELL PHONE STIPENDS	6,331	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	5,989	342
FUEL	62,354	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	62,354	-
WASTE DISPOSAL	539,618	Disposal	0.00%	0.00%	0.00%	100.00%	100.00%	-	-	-	539,618
CHEMICALS	666,780	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	666,780	-
LAND APPLICATION	57,557	Disposal	0.00%	0.00%	0.00%	100.00%	100.00%	-	-	-	57,557

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
SMALL TOOLS	4,796	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	4,796	-
FUEL - VEHICLES	19,288	Disposal	0.00%	0.00%	0.00%	100.00%	100.00%	-	-	-	19,288
OFFICE SUPPLIES	4,796	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	4,796	-
LABORATORY EXPENSE	110,222	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	110,222	-
SAFETY SUPPLIES	11,511	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	11,511	-
OTHER - MATERIALS AND SUPPLIES	4,796	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	4,796	-
MAINTENANCE - EQUIPMENT	335,706	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	335,706	-
MAINTENANCE - PUMPING EQUIPMENT	350,139	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	350,139	-
FACILITIES	-	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	-	-
BUILDINGS	66,191	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	66,191	-
MAINTENANCE - METERS	71,946	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	71,946	-
MAINTENANCE - GROUNDS	11,511	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	11,511	-
MOTOR VEHICLES	14,562	Management Est.	0.00%	0.00%	30.00%	70.00%	100.00%	-	-	4,369	10,193
INSURANCE	121,964	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	121,964	-
CONSULTANTS	140,056	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	140,056	-
POSTAGE AND FREIGHT	7,343	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	7,343	-
EDUCATION & DEVELOPMENT	17,747	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	16,787	959
DUES AND MEMBERSHIPS	3,453	FTE	0.00%	0.00%	94.59%	5.41%	100.00%	-	-	3,267	187
RENTS AND LEASES	9,593	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	9,593	-
OTHER	18,226	Treatment	0.00%	0.00%	100.00%	0.00%	100.00%	-	-	18,226	-
Wastewater Treatment Subtotal	**4,898,231**							**-**	**-**	**4,176,367**	**721,864**
Sewer Collection											
SALARIES & WAGES - REGULAR	453,442	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	453,442	-	-
SALARIES & WAGES - OVERTIME	23,500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	23,500	-	-
STANDBY PAY	9,747	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	9,747	-	-
FICA EXPENSE	38,124	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	38,124	-	-
RETIREMENT CONTRIBUTION	33,240	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	33,240	-	-
DEFERRED COMPENSATION	14,560	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	14,560	-	-
WORKERS' COMPENSATION	13,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	13,000	-	-
HEALTH INSURANCE	139,144	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	139,144	-	-
DENTAL INSURANCE	5,341	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	5,341	-	-
DISABILITY SALARY CONTINUATION	2,209	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	2,209	-	-
UNIFORMS	9,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	9,000	-	-
GROUP LIFE & A D & D	3,013	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	3,013	-	-
ELECTRICITY	119,759	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	119,759	-	-
CELL PHONE STIPENDS	1,800	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	1,800	-	-
FUEL	7,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	7,000	-	-
WASTE DISPOSAL	750	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	750	-	-
CHEMICALS	200,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	200,000	-	-
SMALL TOOLS	3,500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	3,500	-	-
FUEL - VEHICLES	35,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	35,000	-	-
OFFICE SUPPLIES	1,500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	1,500	-	-
SAFETY SUPPLIES	9,686	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	9,686	-	-
OTHER - MATERIALS AND SUPPLIES	2,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	2,000	-	-
MAINTENANCE - MAINS	110,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	110,000	-	-
MAINTENANCE - SERVICE LINES	2,500	Customer	100.00%	0.00%	0.00%	0.00%	100.00%	2,500	-	-	-
MOTOR VEHICLES	65,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	65,000	-	-
INSURANCE	8,800	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	8,800	-	-
POSTAGE AND FREIGHT	700	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	700	-	-
PRINTING AND REPRODUCTION	500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	500	-	-
EDUCATION & DEVELOPMENT	10,240	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	10,240	-	-
DUES AND MEMBERSHIPS	2,000	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	2,000	-	-
RENTS AND LEASES	1,500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	1,500	-	-
OTHER	500	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	500	-	-
FORCE ACCOUNT - LABOR	-	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	-	-	-
FORCE ACCOUNT - VEHICLE	-	Collection	0.00%	100.00%	0.00%	0.00%	100.00%	-	-	-	-
Sewer Collection Subtotal	**1,327,055**							**2,500**	**1,324,555**	**-**	**-**

Sewer System Operating & Debt Service Expense Allocation to Functions

Schedule 7

	Test Year COS	Allocation Basis/Factor	Customer % Allocation	Collection % Allocation	Treatment % Allocation	Disposal % Allocation	Total % Allocation	Customer $ Allocation	Collection $ Allocation	Treatment $ Allocation	Disposal $ Allocation
Debt Service											
Series 2003	276,728	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	590	26,084	212,619	37,434
Series 2004B	186,000	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	397	17,532	142,910	25,161
Series 2005	1,911,369	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	4,077	180,165	1,468,566	258,561
Series 2006	154,606	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	330	14,573	118,789	20,914
Series 2010	341,544	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	729	32,194	262,419	46,202
Series 2014	140,145	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	299	13,210	107,678	18,958
Series 2005 - Forward Purchase	(86,283)	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	(184)	(8,133)	(66,294)	(11,672)
SRF Loan	328,000	Assets Funded	0.21%	9.43%	76.83%	13.53%	100.00%	700	30,917	252,013	44,370
Debt Service Subtotal	3,252,108							6,937	306,542	2,498,699	439,930
Capital Projects											
Capital Improvements Transfer	223,609	Five Year CIP	0.00%	58.48%	39.21%	2.31%	100.00%	-	130,765	87,677	5,167
Cash Funded Capital Projects	2,788,995	Five Year CIP	0.00%	58.48%	39.21%	2.31%	100.00%	-	1,630,987	1,093,564	64,445
CIP Funded from Reserve Fund	4,425,640	Five Year CIP	0.00%	58.48%	39.21%	2.31%	100.00%	-	2,588,087	1,735,291	102,262
Minor Capital Equipment Not In Budget	385,802	Assets	0.00%	47.06%	45.00%	7.94%	100.00%	-	181,557	173,608	30,637
Capital Projects Subtotal	7,824,046							-	4,531,396	3,090,139	202,510
Contribution to (Use of) Reserves											
Transfer to Rate Stabilization Fund	123,420	Indirect	6.10%	21.50%	62.30%	10.10%	100.00%	7,529	26,535	76,891	12,465
Cont. to R&R & Contingency Funds - RW	-	Assets	0.00%	47.06%	45.00%	7.94%	100.00%	-	-	-	-
Contribution to (Use of) Reserves Subtotal	123,420							7,529	26,535	76,891	12,465
TOTAL EXPENDITURES	**20,363,334**							**571,175**	**6,834,816**	**11,375,163**	**1,582,028**
% Allocation								2.81%	33.56%	55.86%	7.77%
Expenses Excluded From Indirect Allocation											
Debt Service	11,199,574							14,466	4,864,474	5,665,729	654,906
Net Expenses for Indirect Allocation	9,163,760							556,710	1,970,343	5,709,433	927,122
% of Expenditures						(Basis of Indirect Allocations ->)		6.10%	21.50%	62.30%	10.10%

Prepared by Burton & Associates

12/3/2015

Water Cost Allocation Functions & Flow Data

Schedule 8

Function	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Fire Protection	Customers
Source of Supply	X				
Treatment	X	X			
Distribution	X	X	X		
Meters/Services					X
Fire Protection				X	

% to Each Component					
Source of Supply	100%				
Treatment	70%	30%			
Distribution	58%	25%	16%		
Meters/Services					100%
Fire Protection				100%	

	AVERAGE DAY	**MAX MONTH[(1)]**	**MAX DAY[(2)]**	**PEAK HOUR[(3)]**
Water System Demands	6.9	8.0	10.0	11.9

Fiscal Year	**Average Day (MGD)**	**Max Month (MGD)**	**Max Day (MGD)**	**Max Hour (MGD)**	**MM Factor**	**MD Factor**	**MH Factor**
2011	7.51	9.67	11.91	15.10	1.29	1.59	2.01
2012	6.89	7.67	9.25	10.56	1.11	1.34	1.53
2013	6.61	7.50	10.19	12.28	1.14	1.54	1.86
2014	6.78	7.62	8.87	10.89	1.12	1.31	1.61
2015	6.91	7.69	9.63	10.64	1.11	1.39	1.54

(1) Average max month factor 2011 to 2015

(2) Average max day factor 2011 to 2015

(3) Average peak hour factor 2011 to 2015

Extra Capacity Factors by Customer Class

Schedule 9

	Single Family Residential	Multi-Family Residential	General Service	Irrigation	Total
Average Daily Consumption (MGD)	1.99	1.59	2.44	0.20	6.22
Max Month (MGD)	2.38	1.72	2.80	0.56	
Max Month/Ratio of Avg. Day	1.20	1.08	1.15	2.80	
System Max Day/Max Month Ratio	1.15	1.15	1.15	1.15	
Daily Usage Adjustment	1.08	1.00	1.14	1.17	
Calculated Max Day Peaking Factor	1.49	1.25	1.51	3.77	
Noncoincident Demand (MGD)	2.95	1.98	3.70	0.75	9.38
Noncoincident Max Day Peaking Factor	1.51				
Coincident Max Day Peaking Factor	1.44				
System MD Diversity*	**1.05**				
Peak Hour Usage Adjustment	1.50	1.50	1.42	1.50	
Calculated Peak Hour Peaking Factor	2.23	1.87	2.16	5.65	
Noncoincident Demand (MGD)	4.43	2.97	5.26	1.12	13.79
Noncoincident Max Hour Peaking Factor	2.22				
Coincident Max Hour Peaking Factor	1.71				
System MH Diversity*	**1.29**				

**AWWA M1: Range for System MD Diversity For Many Utility Systems is 1.10 - 1.40*

**AWWA M1: Range for System MH Diversity For Many Utility Systems is 1.10 - 1.40*

Summary of Water and Sewer Units of Service

Schedule 10

Water Units of Service	Base Units: Annual Use 1,000 gallons	Base Units: Average Rate 1,000 gpd	Max Day Units: Peaking Factor %	Max Day Units: Total Capacity 1,000 gpd	Max Day Units: Extra Capacity 1,000 gpd	Max Hour Units: Peaking Factor %	Max Hour Units: Total Capacity 1,000 gpd	Max Hour Units: Extra Capacity 1,000 gpd	Fire Protection: Maximum Needed Fire Flow (gpm)	Fire Protection: Duration (min)	Fire Protection: Equivalent Fire Flow 1,000 gallon	Customer Units: Equivalent Meters & Services	Customer Units: Number of Customers	Customer Units: Number of Bills
Single Family Residential	724,976	1,986	149	2,954	968	223	4,431	1,477	1,000	120	1,699,700	14,335	14,164	169,970
Multi-Family Residential	581,241	1,592	125	1,983	390	187	2,974	991	1,000	120	550,820	7,355	4,590	55,082
General Service	890,738	2,440	151	3,697	1,256	216	5,263	1,566	2,000	180	499,380	7,172	1,387	16,646
Irrigation	72,499	199	377	748	549	565	1,122	374	-	-	-	724	246	2,953
Total	**2,269,454**	**6,218**		**9,382**	**3,164**		**13,790**	**4,408**			**2,749,900**	**29,585**	**20,388**	**244,651**

Sewer Unit of Service	Annual Use 1,000 gallons	Ratio of WTTP Flow to Billings	Contributed Volume 1,000 gallons	Strength (Concentration): CBOD (mg/L)	TSS (mg/L)	TKN(mg/L)	TP(mg/L)	Strength (Loadings): CBOD (lbs)	TSS (lbs)	TKN(lbs)	TP(lbs)	Customer Units: Equivalent Meters &	Number of Customers	Number of Bills
Single Family Residential	662,369	38%	914,069	235	275	31	6	1,792,558	2,097,675	236,465	45,767	13,487	13,343	160,112
Multi-Family Residential	576,554	38%	795,645	235	275	31	6	1,560,319	1,825,905	205,829	39,838	7,322	4,571	54,853
General Service	840,299	38%	1,159,613	235	275	31	6	2,274,087	2,661,166	299,986	58,062	6,981	1,314	15,770
Total	**2,079,222**		**2,869,326**					**5,626,964**	**6,584,745**	**742,280**	**143,667**	**27,789**	**19,228**	**230,735**
WWTP Actuals			*2,874,266*					*5,940,635*	*6,954,264*	*744,401*	*147,922*			
			Limits per Rate Ordinance	*205*	*235*	*25*	*6.5*							

Water Functional Cost Allocations

Schedule 11

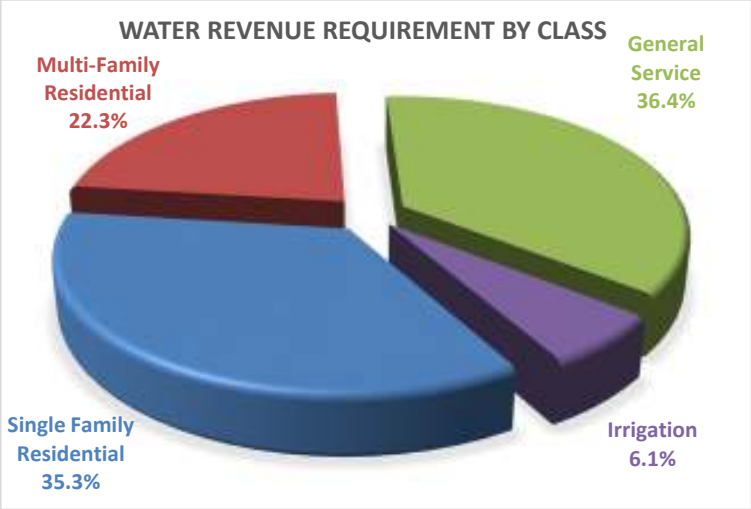
	TY Costs	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Fire Protection	Customer - Meters/Services
Water System Costs By Function						
Source of Supply	$ 3,644,067	$ 3,644,067	$ -	$ -	$ -	$ -
Treatment	$ 8,580,477	$ 5,971,139	$ 2,609,338	$ -	$ -	$ -
Distribution	$ 5,998,778	$ 3,499,203	$ 1,529,123	$ 970,453	$ -	$ -
Meters/Services	$ 1,305,651	$ -	$ -	$ -	$ -	$ 1,305,651
Fire Protection	$ 1,117,665	$ -	$ -	$ -	$ 1,117,665	$ -
Total Costs	**$ 20,646,638**	**$ 13,114,408**	**$ 4,138,461**	**$ 970,453**	**$ 1,117,665**	**$ 1,305,651**

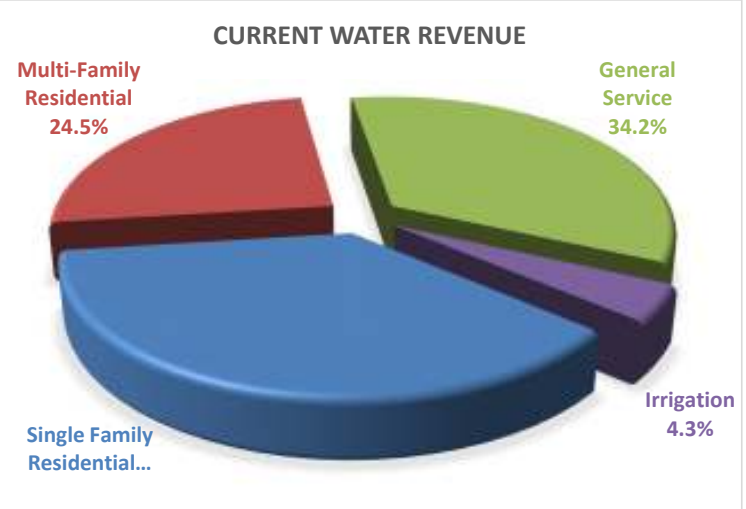
	TY Costs	Base Capacity - Avg Day (per TGAL)	Extra Capacity - Max Day (per TGPD)	Extra Capacity - Peak Hour (per TGPD)	Fire Protection (per TGAL)	Customer - Meters/Services (per Bill)
Water System Unit Costs						
Operating	$ 11,429,789	$ 2.95	$ 648.89	$ 99.22	$ 0.38	$ 4.95
Debt Service	$ 5,164,219	$ 1.71	$ 354.81	$ 17.67	$ 0.01	$ 0.18
Rate Funded Capital	$ 4,052,630	$ 1.12	$ 304.32	$ 103.25	$ 0.02	$ 0.21
Total	**$ 20,646,638**	**$ 5.78**	**$ 1,308.02**	**$ 220.15**	**$ 0.41**	**$ 5.34**

Summary of Water Revenue Requirement Allocations

Schedule 12

	Total	Single Family Residential	Multi-Family Residential	General Service	Irrigation
Operations and Maintenance	$ 11,429,789	$ 4,393,906	$ 2,545,797	$ 3,868,129	$ 621,958
Plus: Debt Service	$ 5,164,219	$ 1,664,126	$ 1,167,612	$ 2,006,480	$ 326,001
Plus: Rate Funded Capital	$ 4,052,630	$ 1,320,487	$ 891,920	$ 1,552,665	$ 287,558
Total Revenue Requirements	$ 20,646,638	$ 7,378,518	$ 4,605,329	$ 7,427,273	$ 1,235,517
Less: Other Revenue	$ 2,799,253	$ 1,079,888	$ 632,694	$ 935,974	$ 150,698
Revenue Requirement from Rates	**$ 17,847,384**	**$ 6,298,631**	**$ 3,972,635**	**$ 6,491,300**	**$ 1,084,819**
Current Rate Revenue	$ 17,990,169	$ 6,639,864	$ 4,412,973	$ 6,160,557	$ 776,775
Total Rate Revenue Req.	$ 17,847,384	$ 6,298,631	$ 3,972,635	$ 6,491,300	$ 1,084,819
Over/(Under) Recovery	$ 142,784	$ 341,233	$ 440,338	$ (330,742)	$ (308,044)
Estimated Total Revenue		36.9%	24.5%	34.2%	4.3%
System Revenue Requirement by Class		35.3%	22.3%	36.4%	6.1%
Over / (Under) Recovery Percentage		**1.6%**	**2.3%**	**-2.1%**	**-1.8%**





Prepared by Burton & Associates

12/3/2015

Function	Volume	CBOD	TSS	TKN	TP	Customer
Customer						X
Collection	X					
Treatment	X	X	X	X	X	
Disposal		X	X	X	X	
% to Each Component						
Customer						100%
Collection	100%					
Treatment	50%	22%	25%	3%	1%	
Disposal		43%	50%	6%	1%	

Sewer System Flow Data

	Volume				Loadings							
Year	Plant Influent (MG)	Average Day Billings (MGD)	Average Day WWTP Flow (MGD)	Max Month WWTP Flow (MGD)	Max Day WWTP Flow (MGD)	CBOD (lbs)	TSS (lbs)	TKN (lbs)	TP (lbs)	CBOD (mg/L)	TSS (mg/L)	TKN (mg/L)	TP (mg/L)
FY11	2,662	5.79	7.25	8.10	16.53	5,743,489	6,268,285	730,951	161,803	258.67	282.31	32.92	7.29
FY12	2,784	5.69	7.61	8.35	12.06	5,369,311	6,362,758	722,661	165,127	231.21	273.99	31.12	7.11
FY13	2,942	5.55	8.07	9.19	22.31	5,523,201	6,666,003	755,720	158,619	225.08	271.65	30.80	6.46
FY14	3,028	5.67	8.30	9.45	20.11	5,189,671	5,843,139	755,209	150,618	205.51	231.39	29.91	5.96
FY15	2,954	5.70	8.10	9.29	14.96	5,940,635	6,954,264	744,401	147,922	241.10	282.24	30.21	6.00
Average	2,874	5.68	7.86	8.87	17.20	5,553,261	6,418,890	741,788	156,818	232.32	268.32	30.99	6.57

Sewer Functional Cost Allocations

Schedule 14

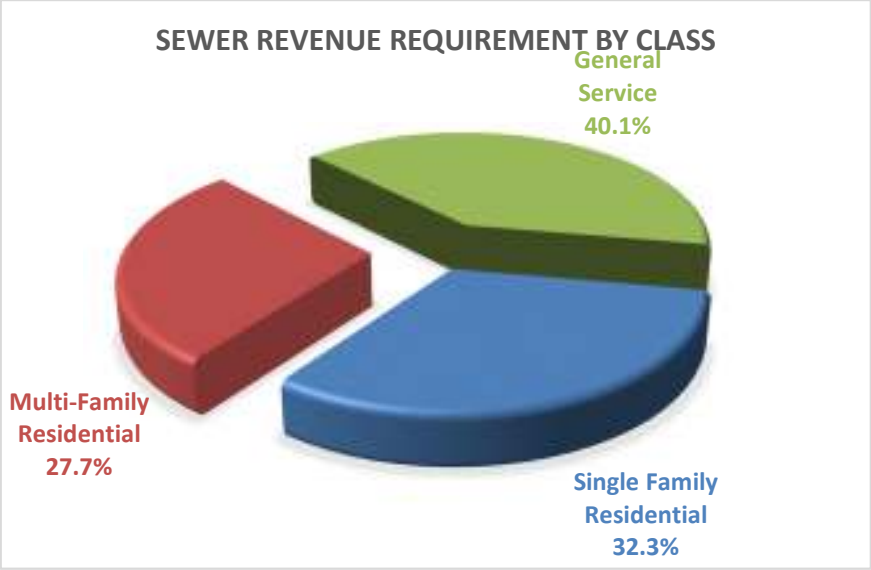
	TY Costs	Volume	CBOD	TSS	TKN	TP	Customer
Sewer System Costs by Function							
Customer	$ 571,175	$ -	$ -	$ -	$ -	$ -	$ 571,175
Collection	$ 6,834,816	$ 6,834,816	$ -	$ -	$ -	$ -	$ -
Treatment	$ 11,375,163	$ 5,687,581	$ 2,455,114	$ 2,835,566	$ 327,512	$ 69,389	$ -
Disposal	$ 1,582,028	$ -	$ 682,902	$ 788,726	$ 91,099	$ 19,301	$ -
Total	**$ 20,363,183**	**$ 12,522,398**	**$ 3,138,016**	**$ 3,624,293**	**$ 418,610**	**$ 88,690**	**$ 571,175**

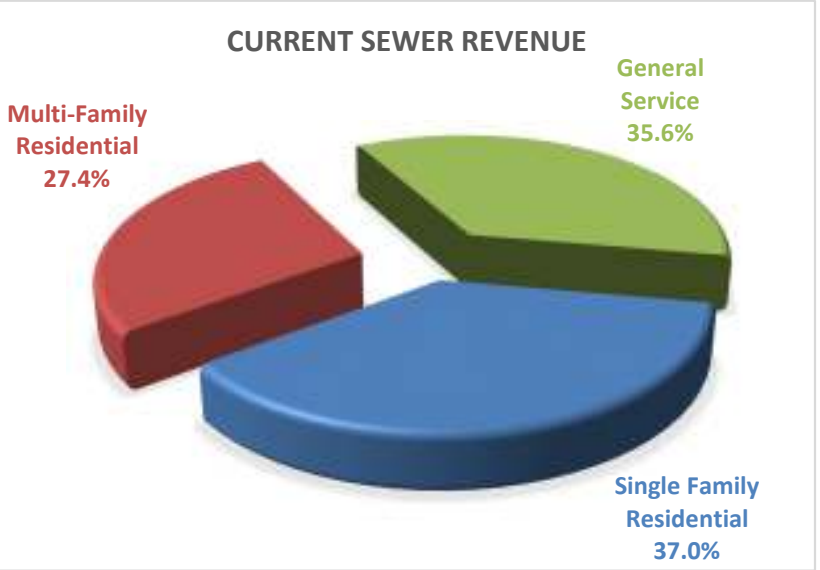
	TY Costs	Volume (per TGAL)	CBOD (lbs)	TSS (lbs)	TKN (lbs)	TP (lbs)	Customer (per bill)
Sewer System Unit Costs							
Operating	$ 8,949,256	$ 2.35	$ 0.29	$ 0.29	$ 0.30	$ 0.33	$ 0.98
Debt Service	$ 3,252,108	$ 0.75	$ 0.13	$ 0.13	$ 0.13	$ 0.14	$ 0.03
Rate Funded Capital	$ 8,161,819	$ 2.92	$ 0.13	$ 0.13	$ 0.14	$ 0.15	$ 1.46
Total	**$ 20,363,183**	**$ 6.02**	**$ 0.56**	**$ 0.55**	**$ 0.56**	**$ 0.62**	**$ 2.48**

Summary of Sewer Revenue Requirement Allocations

Schedule 15

	Total	Single Family Residential	Multi-Family Residential	General Service
Operations and Maintenance	$ 8,949,256	$ 2,935,932	$ 2,472,608	$ 3,540,716
Plus: Debt Service	$ 3,252,108	$ 1,038,614	$ 901,513	$ 1,311,981
Plus: Rate Funded Capital	$ 8,161,819	$ 2,726,861	$ 2,249,854	$ 3,185,104
Total Revenue Requirements	$ 20,363,183	$ 6,701,407	$ 5,623,974	$ 8,037,801
Less: Other Revenue	$ 3,476,362	$ 1,251,771	$ 950,593	$ 1,273,999
Revenue Requirement from Rates	**$ 16,886,820**	**$ 5,449,636**	**$ 4,673,382**	**$ 6,763,802**
Current Rate Revenue	$ 16,794,115	$ 6,222,123	$ 4,593,641	$ 5,978,351
Total Rate Revenue Req.	$ 16,886,820	$ 5,449,636	$ 4,673,382	$ 6,763,802
Over/(Under) Recovery	$ (92,705)	$ 772,486	$ (79,740)	$ (785,451)
Estimated Total Revenue		37.0%	27.4%	35.6%
System Revenue Requirement by Class		32.3%	27.7%	40.1%
Over / (Under) Recovery Percentage		**4.8%**	**-0.3%**	**-4.5%**





Prepared by Burton & Associates

12/3/2015

Allocation of Water Revenue Requirements to Rate Components

Schedule 16

Conceptual Allocation to Fixed Charge	Base Capacity - Avg Day	Extra Capacity - Max Day	Extra Capacity - Peak Hour	Fire Protection	Customer - Meters/Services
Operations and Maintenance	0%	0%	0%	0%	100%
Debt Service	100%	100%	100%	100%	100%
Rate Funded Capital	0%	0%	0%	0%	100%

Fixed	Total	Single Family Residential	Multi-Family Residential	General Service	Irrigation	Rate Component Cost Recovered	Current Rate Compment Cost Recovered
Operations and Maintenance	$ 1,210,268	$ 840,827	$ 272,486	$ 82,346	$ 14,608		
Plus: Debt Service	$ 5,164,219	$ 1,664,126	$ 1,167,612	$ 2,006,480	$ 326,001		
Plus: Rate Funded Capital	$ 50,389	$ 35,007	$ 11,345	$ 3,428	$ 608		
Total Revenue Requirements	$ 6,424,876	$ 2,539,960	$ 1,451,443	$ 2,092,255	$ 341,218		
Less: Other Revenue	$ -	$ -	$ -	$ -	$ -		
Fixed Charge Requirement	$ 6,424,876	$ 2,539,960	$ 1,451,443	$ 2,092,255	$ 341,218	**36%**	**28%**

Consumption	Total	Single Family Residential	Multi-Family Residential	General Service	Irrigation
Operations and Maintenance	$ 10,219,521	$ 3,553,079	$ 2,273,311	$ 3,785,782	$ 607,350
Plus: Debt Service	$ -	$ -	$ -	$ -	$ -
Plus: Rate Funded Capital	$ 4,002,241	$ 1,285,479	$ 880,575	$ 1,549,236	$ 286,949
Total Revenue Requirements	$ 14,221,762	$ 4,838,558	$ 3,153,886	$ 5,335,019	$ 894,299
Less: Other Revenue	$ 2,799,253	$ 1,079,888	$ 632,694	$ 935,974	$ 150,698
Consumption Rate Requirement	$ 11,422,509	$ 3,758,670	$ 2,521,192	$ 4,399,045	$ 743,601
					64%	**72%**

Allocation of Sewer Revenue Requirements to Rate Components

Schedule 17

Conceptual Allocation to Fixed Charge	Volume	CBOD	TSS	TKN	TP	Customer
Operations and Maintenance	0%	0%	0%	0%	0%	100%
Debt Service	100%	100%	100%	100%	100%	100%
Rate Funded Capital	0%	0%	0%	0%	0%	100%

Fixed	Total	Single Family Residential	Multi-Family Residential	General Service	Rate Component Cost Recovered	Current Rate Compment Cost Recovered
Operations and Maintenance	$ 226,466	$ 157,149	$ 53,838	$ 15,478		
Plus: Debt Service	$ 3,252,108	$ 1,038,614	$ 901,513	$ 1,311,981		
Plus: Rate Funded Capital	$ 337,773	$ 234,388	$ 80,299	$ 23,086		
Total Revenue Requirements	$ 3,816,347	$ 1,430,151	$ 1,035,650	$ 1,350,545		
Less: Other Revenue	$ -	$ -	$ -	$ -		
Fixed Charge Requirement	**$ 3,816,347**	**$ 1,430,151**	**$ 1,035,650**	**$ 1,350,545**	**23%**	**20%**

Consumption	Total	Single Family Residential	Multi-Family Residential	General Service
Operations and Maintenance	$ 8,722,790	$ 2,778,783	$ 2,418,770	$ 3,525,238
Plus: Debt Service	$ -	$ -	$ -	$ -
Plus: Rate Funded Capital	$ 7,824,046	$ 2,492,473	$ 2,169,554	$ 3,162,018
Total Revenue Requirements	$ 16,546,836	$ 5,271,256	$ 4,588,324	$ 6,687,256
Less: Other Revenue	$ 3,476,362	$ 1,251,771	$ 950,593	$ 1,273,999
Consumption Rate Requirement	**$ 13,070,474**	**$ 4,019,485**	**$ 3,637,732**	**$ 5,413,257**	**77%**	**80%**

Water System FY 2016 Allocation of Other Revenues

Schedule 18

Type	Budget	Allocation Factor	Single Family Residential % Allocation	Multi-Family Residential % Allocation	General Service % Allocation	Irrigation % Allocation	Total % Allocation	Single Family Residential $ Allocation	Multi-Family Residential $ Allocation	General Service $ Allocation	Irrigation $ Allocation
Operating Income											
Service Initiation Fee	81,529	Customers	69.47%	22.51%	6.80%	1.21%	100.00%	56,642	18,356	5,547	984
Refunds/Adjustments	(116,034)	Revenues	36.91%	24.53%	34.24%	4.32%	100.00%	(42,826)	(28,463)	(39,735)	(5,010)
Rental/Royalty Income	368,400	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	131,656	82,173	132,526	22,045
Fishing & Boating	30,605	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	10,937	6,826	11,009	1,831
Other	124,925	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	44,645	27,865	44,940	7,476
Water Impact Fees	419,703	Meter Equivalents	48.45%	24.86%	24.24%	2.45%	100.00%	203,357	104,335	101,746	10,264
Outside Funding for CIP	204,004	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	72,905	45,504	73,387	12,208
Use of Reserves	1,671,339	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	597,289	372,800	601,236	100,015
Rate Stabilization Fund	-	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	-	-	-	-
Renewal & Replacement	-	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	-	-	-	-
Capital Improvements	-	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	-	-	-	-
Interest Earned on Unrestricted Funds	14,783	Weighted	35.74%	22.31%	35.97%	5.98%	100.00%	5,283	3,297	5,318	885
Total Other Revenues	**2,799,253**							**1,079,888**	**632,694**	**935,974**	**150,698**

Prepared by Burton & Associates

12/3/2015

Sewer System FY 2016 Allocation of Other Revenues (Per 2015 Actual to Budget and February Financials.xls)

Schedule 19

Type	Budget	Allocation Factor	Single Family Residential % Allocation	Multi-Family Residential % Allocation	General Service % Allocation	Total % Allocation	Single Family Residential $ Allocation	Multi-Family Residential $ Allocation	General Service $ Allocation
Service Initiation Fee	76,892	Customers	69.39%	23.77%	6.83%	100.00%	53,357	18,280	5,255
Refunds/Adjustments	(113,138)	Revenues	37.05%	27.35%	35.60%	100.00%	(41,917)	(30,946)	(40,275)
Rental/Royalty Income	359,204	Weighted	32.91%	27.62%	39.47%	100.00%	118,212	99,206	141,786
Fishing & Boating	29,841	Weighted	32.91%	27.62%	39.47%	100.00%	9,820	8,241	11,779
Other	121,807	Weighted	32.91%	27.62%	39.47%	100.00%	40,086	33,641	48,080
Sewer Impact Fees	539,879	Meter Equivalents	48.53%	26.35%	25.12%	100.00%	262,023	142,241	135,616
Outside Funding for CIP	266,240	Weighted	32.91%	27.62%	39.47%	100.00%	87,618	73,531	105,091
Use of Reserves	2,181,223	Weighted	32.91%	27.62%	39.47%	100.00%	717,828	602,418	860,977
Rate Stabilization Fund	-	Weighted	32.91%	27.62%	39.47%	100.00%	-	-	-
Renewal & Replacement	-	Weighted	32.91%	27.62%	39.47%	100.00%	-	-	-
Capital Improvements	-	Weighted	32.91%	27.62%	39.47%	100.00%	-	-	-
Interest Earned on Unrestricted Funds	14,414	Weighted	32.91%	27.62%	39.47%	100.00%	4,743	3,981	5,689
Total Other Revenues	**3,476,362**						**1,251,771**	**950,593**	**1,273,999**

Prepared by Burton & Associates

12/3/2015

Water System

Asset Category	Original Cost	Depreciated Value	Water	Supply	Treatment	Distribution	Customer
Distribution	76,867,789	59,532,659				x	
Transmission	9,149,966	1,442,164				x	
General & Admin	7,033,265	4,408,116		x	x	x	x
Hydrants	1,790,884	622,856				x	
Meters	3,184,217	1,007,582					x
Treatment	67,052,209	32,598,660			x		
Total	165,078,329	99,612,037	43%	-	42%	56%	2%

Sewer System

Asset Category	Original Cost	Depreciated Value	Sewer	Customer	Collection	Treatment	Disposal
Collection	90,270,186	70,401,499			x		
General & Admin	7,033,265	4,408,116		x	x	x	x
Transmission	7,805,090	235,942			x		
Treatment	110,331,037	70,373,643				x	
Total	215,439,577	145,419,200	56%	-	47%	45%	8%

Reclaim System

Asset Category	Original Cost	Depreciated Value	Reclaim
Reclaimed Water	7,085,052	6,499,340	
Total	7,085,052	6,499,340	2%

Outstanding Debt

Schedule 21

Water System

Asset Category	Outstanding Debt	Water	Supply	Treatment	Distribution	Customer	Fire Protection
Raw water supply	$3,528,196		x				
Raw water transmission	3,390,547		x				
Water treatment	17,454,156			x			
Water Transmission	2,131,288				x		
Central office and operations	2,376,372		x	x	x	x	x
Total	28,880,559	35.0%	25.4%	63.7%	9.3%	0.9%	0.7%

Sewer System

Asset Category	Outstanding Debt	Sewer	Customer	Collection	Treatment	Disposal
Wastewater collection	3,687,778			x		
Wastewater pumping	960,979			x		
Wastewater treatment	47,070,583				x	
Central office and operations	1,874,102		x	x	x	x
Total	53,593,442	65.0%	0.2%	9.4%	76.8%	13.5%