

FILED
November 26, 2025
INDIANA UTILITY
REGULATORY COMMISSION

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF)
BLOOMINGTON, INDIANA, FOR)
AUTHORITY TO INCREASE ITS RATES)
AND CHARGES FOR WATER UTILITY)
SERVICE, FOR APPROVAL OF A NEW) CAUSE NO. 46330
SCHEDULE OF WATER RATES AND)
CHARGES APPLICABLE THERETO, AND)
FOR AUTHORITY TO ISSUE AND)
APPROVAL OF BONDS, NOTES, OR)
OTHER OBLIGATIONS)

PETITIONER'S EXHIBIT 5

VERIFIED DIRECT TESTIMONY

OF

ANDREW J. BURNHAM

WITH ATTACHMENTS AJB-1 TO AJB-3

ON BEHALF OF

THE CITY OF BLOOMINGTON, INDIANA

I. INTRODUCTION

Please state your name and business address.

A. My name is Andrew J. Burnham. My business address is 777 South Harbour Island Boulevard, Suite 600, Tampa, Florida 33602.

What is your occupation?

A. I am a Vice President with Stantec Consulting Services Inc. (“Stantec”) and Director of Management & Technology Consulting. In that capacity, I have responsibility for the delivery and oversight of the company’s asset management, organizational performance, financial, economic, funding, and technology advisory services to hundreds of communities throughout North America. While these services are provided across multiple sectors, they are predominantly focused within the water industry.

What is your educational background?

A. I hold a Bachelor of Science degree in Business Administration, as well as an Associate Personal Computer Specialist degree from Lake Superior State University. Moreover, I have attended multiple classes in utility ratemaking from several industry groups, including the American Water Works Association (“AWWA”), the American Gas Association, and the Edison Electric Institute.

Please describe your professional experience.

A. From January 2001 through July 2003, I worked for Consumers Energy Company as an analyst within the Rates Department where I focused on various elements of revenue requirements, cost of service allocations, pricing, and tariff administration for retail, as well as wholesale customers of the electric and natural gas systems. In July of 2003, I began my employment with Burton & Associates, a specialty consulting services company focused

1 on providing water resources rate setting and financial management advisory services to
2 local governments and private utilities. Over time, I received various promotions,
3 ultimately becoming Vice President and co-owner prior to the sale of the company in
4 December of 2015 to Hawksley Consulting, a subsidiary of Montgomery Watson Harza,
5 which Stantec Consulting Services Inc. acquired in 2016.

6 Since 2003, my technical area of focus has been predominantly on water resources
7 financial management and rate setting for public and private utilities. During my career, I
8 have personally conducted or managed hundreds of water rate studies for more than a
9 hundred communities throughout North America, mostly in the United States. As such, I
10 am an active and contributing member of the Rates & Charges Committee and the Finance,
11 Accounting & Management Controls Committee of the AWWA. I also serve as the Chair
12 and a Trustee of the Management & Leadership Division of AWWA that oversees these
13 committees. Among my contributions, I led the development of the first ever Cash
14 Reserves Policy Guidelines report and corresponding policy statement for AWWA, and I
15 co-authored the current seventh edition of the Manual of Water Supply Practices M1
16 Principles of Water Rates, Fees, and Charges ("M1") published by the AWWA in January
17 of 2017¹. At present, I serve as a co-author for two manual updates that are in the
18 publication process of AWWA: first, an update to the fourth edition of its Manual of Water
19 Supply Practices M29 Water Utility Capital Financing, and second, an update to the current
20 seventh edition of M1. These publications are estimated to be available in 2026.

¹ Unless otherwise noted, all references in my testimony to M1 are to the 7th edition of M1.

1 Additionally, I serve as an instructor for the water portion of the Advanced Ratemaking
2 Program of the Institute of Public Utilities of Michigan State University. I also maintain
3 memberships in other notable and relevant industry groups, including the Utility Resource
4 Management Committee of the Water Environment Federation, the National Association
5 of Clean Water Agencies, Association of Metropolitan Water Agencies, Association of
6 Regional Water Organizations, United States Water Alliance, and the Government Finance
7 Officers Association. I routinely prepare publications and make presentations on water
8 resources management and rate setting topics for these and other industry groups.

9 Particularly relevant to my testimony in this proceeding is my work with communities that
10 provide water service to major universities. University communities I assist include Ann
11 Arbor, Michigan (University of Michigan), Columbia, Missouri (University of Missouri),
12 Tempe, Arizona (Arizona State University), and the Orange Water & Sewer Authority,
13 North Carolina (University of North Carolina), among others. Moreover, I also provided
14 cost of service and rate design testimony on behalf of the City of Bloomington, Indiana
15 ("Bloomington") in its most recent prior rate case (Cause No. 45533).

16 Further information on my qualifications and experience is included in Attachment AJB-
17 1.

18 **5. Have you previously testified in any regulatory proceedings?**

19 A. Yes. I have prepared and/or provided utility rate related testimony before utility regulatory
20 commissions in Arizona, Florida, Indiana, Michigan, the United States Virgin Islands, and
21 the Federal Energy Regulatory Commission, and in circuit and district courts in various
22 states. The subject of my testimony in these matters varied, including but not limited to:
23 revenue requirements; rate adjustments; cost of service allocations; pricing structures; rate

1 base and return on investment; wholesale rates; utility acquisitions; connection and capital
2 cost recovery charges; and miscellaneous fees and user charges.

3 **II. OVERVIEW OF TESTIMONY**

4 **6. What is the purpose of your engagement and testimony in this proceeding?**
5 A. Stantec was engaged by the Bloomington to prepare a cost of service and rate design
6 analysis to develop proposed schedules of rates and charges for water service based upon
7 the revenue requirements in its petition. Stantec completed a cost of service and rate design
8 analyses using customer data for a test year of January 2024 to December 2024 and utilized
9 accepted industry practices to develop schedules of rates and charges by customer
10 classification and service type. The revenue requirements relied upon for this analysis were
11 provided to Stantec by Crowe LLP (“Crowe”).

12 **7. Please discuss how your direct testimony is organized.**

13 A. My testimony is organized into the following sections:
14 I. Introduction
15 II. Overview of Testimony
16 III. Cost of Service Study
17 IV. Proposed Water Rates and Charges

18 **8. What attachments are you sponsoring in this proceeding?**

19 A. I am sponsoring the following attachments, some of which have multiple parts:
20 AJB-1 Business Experience and Qualifications of Andrew J. Burnham
21 AJB-2 Cost of Service Detailed Schedules
22 AJB-3 Schedule of Rates and Charges

23 **9. Were these attachments prepared by you or prepared under your direct supervision?**

24 A. Yes. I either prepared each of the schedules or provided supervision as to their preparation.

25 **10. Please describe the general arrangement of these attachments.**

1 A. Attachment AJB-1 identifies my business experience and qualifications.

2 Attachment AJB-2 includes detailed schedules presenting the steps, source data, and

3 resulting allocations of the cost of service study by customer classification and service type.

4 Attachment AJB-3 includes detailed schedules supporting the design of the rates and

5 charges that will generate the allocations of identified revenue requirements from the cost

6 of service study by customer classification and service type, including bill impact analysis.

III. COST OF SERVICE STUDY

.. Please provide a summary of your cost of service study testimony.

9 A. This testimony will describe the purpose of the cost of service study, identify the data and
10 methodology relied upon in completing the analysis, and present the resulting allocations
11 to each customer class of revenue requirements that informed the development of
12 recommended rates and charges.

13 12. Please describe the purpose of a cost of service study.

14 A. The basic premise in establishing nondiscriminatory, reasonable and just rates is that rates
15 should reflect the cost of providing service to each customer class. The water system
16 provides service to various classes of customers who have different water use and demand
17 patterns and service characteristics. A cost of service study determines proportional
18 allocations of costs between defined customer classifications to support the development
19 of rates and charges that reasonably recover the costs incurred to serve each respective
20 customer classification.

21 The cost of providing service can be reasonably determined for groups or classes of
22 customers that have similar water-use characteristics. Rate-making endeavors to assign
23 costs to classes of customers in a nondiscriminatory, cost-responsive, and proportional

1 manner so that rates can be designed to closely meet the cost of providing service to such
2 customer classes (M1, page 73). Stantec has followed the "base-extra capacity"
3 methodology outlined in the M1 to allocate costs to system functions and then to each
4 customer class based on identified units of service. M1 identifies two methodologies for
5 the allocation of water utility costs, the base-extra capacity method and the commodity-
6 demand method. The base-extra capacity method is the most common method utilized and
7 provides for the determination of costs associated with meeting average day versus peak
8 demands that is useful in analyzing differences between the cost of serving various
9 customer classifications and in developing rate structures. The intent of the M1 is to
10 provide guidance and advice so that a utility may create cost-based rates that reflect the
11 distinct and unique characteristics of that utility and the values of the community.

12 **13. Where did you obtain the data used to perform the cost of service study?**

13 A. The data used to prepare the study was provided by Bloomington from its business records,
14 from Crowe, or is otherwise available to individuals working in the utility rate and
15 financing field. Based upon my experience, the type of data used in the study is consistent
16 with general industry practice. Specifically, Crowe provided the test year revenue
17 requirement schedule shown in Attachment JZW-1 sponsored by the Petitioner's witness
18 Jennifer Z. Wilson. Data provided by Bloomington includes but is not limited to, automated
19 metering infrastructure ("AMI") data, organizational structure and staffing data, operating
20 statistics, historical water production, customer billing data, system information, asset
21 records, capital improvement plans, rate schedules, fire flow requirements, and occurrences
22 of fires. Lastly, some of the materials I reviewed to prepare my testimony in this Cause
23 includes, but, is not limited to, M1, records and documentation from the prior rate case for

1 Bloomington, as well as other materials which are normally examined to allocate system
2 costs and develop utility rates and charges.

3 **14. What was the test year used in the study?**

4 The test year is the period from January 1, 2024 – December 31, 2024, adjusted as
5 described in Petitioner's witness Jennifer Z. Wilson's testimony. As part of the
6 development of cost of service and test year selection a comprehensive analysis was
7 conducted, examining historical rainfall and water used trends over a period. Annual
8 rainfall data was pulled from NOAA for the City of Bloomington to assess the annual
9 precipitation from 2020 to 2024, revealing that rainfall in 2024 aligned with the 5-year
10 average.

Year	Annual Precipitation (In)
2020	47.11
2021	53.56
2022	38.77
2023	42.33
2024	45.65
Average (2020-2024)	45.48

11
12 Additionally, monthly billed water usage in thousand gallons ("kgal") for a 3-year period
13 (2022-2024) was evaluated to identify any anomalies or outliers and is shown below. Based
14 on this evaluation and weather patterns, 2024 was determined to be a representative year
15 for use in the cost of service analysis.

Month	2022	2023	2024
January	304,088	329,576	303,607
February	345,009	334,108	321,204
March	318,292	299,364	298,797
April	304,833	313,972	307,436
May	362,691	329,541	311,979

June	346,139	355,644	330,386
July	369,366	370,792	351,370
August	377,884	369,070	385,393
September	408,507	397,088	398,311
October	427,436	403,799	379,718
November	387,816	367,691	376,629
December	332,535	315,522	314,339

1

2 **15. Please describe the methodology employed in developing the cost of service analysis.**

3 A. Stantec has followed the "Base-Extra Capacity" methodology to allocate costs based on
4 the demand and usage of each customer class. This method is described in detail in M1.
5 The base-extra capacity method has been widely utilized and is a well-accepted
6 methodology used by public service commissions and water systems throughout North
7 America. Under the base-extra capacity method, Bloomington's costs (i.e., revenue
8 requirements) are first categorized into the following system functions according to the
9 design and operation of the water system and available data: supply, treatment/pumping,
10 distribution, storage, distribution mains, transmission mains, meters, services, customer,
11 fire protection, hydrants and billing. Some costs can be directly attributed to a function
12 based on the type of expense and department in which it belongs. Other costs, such as
13 Administrative and General, Customer and Capital, will be assigned to each function with
14 the use of allocation factors based on organizational or system statistics, capital projects
15 allocation, and other operating data as appropriate. Specific allocations for these will be
16 discussed further and presented in schedules.

17 The functionalized costs are then allocated to the following cost components according to
18 how they support the operation of the water system to meet base (average day) demands,
19 extra-capacity (max day and max hour) demands, and customer service and billing needs

1 to determine system-wide unit costs. Then the unit costs are applied to the respective units
2 of service for each customer class to distribute costs proportionally. Essentially, the
3 combination of how each customer class uses the base capacity and peak capacities of the
4 water system and associated costs functionalized to each of those cost components will
5 determine the cost to serve each customer class.

6 The intent of the M1 is to provide guidance and advice so that a utility may create cost-
7 based rates that reflect the distinct and unique characteristics of that utility and the values
8 of the community. As such, from the application of the principles and methodologies
9 therein, a utility may create cost-based rates that reflect the distinct and unique
10 characteristics of that utility and the values of the community (M1, page 5). Said simply,
11 utilities are like snowflakes, and while there may be many similarities, there will also be
12 differences that require modifications to approaches and methods employed to best fit the
13 circumstances and available data/resources. A good example is the range in the number
14 and type of system functions employed across utility systems. Some systems may be able
15 and need to break out their costs more granularly and subsequently utilize a greater number
16 of functions in their allocation process (such as supply, treatment/pumping, transmission,
17 distribution storage and mains, meters/service lines, customer service, etc.) which was done
18 in this instance for Bloomington.

19 **16. Please describe the base extra capacity, customer and direct public fire
20 protection cost components to which the costs of each function are allocated.**

21 A. Base Costs are costs that vary directly with the total quantity of water used and capacity
22 costs associated with serving customers under average load conditions.

1 Extra Capacity Costs include operating and capital costs incurred due to demands in excess
2 of average load conditions and include two components: 1) Maximum day extra capacity
3 costs incurred in meeting demands in excess of average day requirements; and 2)
4 Maximum hour extra capacity costs incurred in meeting hourly demands in excess of
5 maximum day demands.

6 Customer Costs are defined as costs that tend to vary in proportion to the number of
7 customers connected to the system. Customer costs are further differentiated between
8 billing-related and meter-related costs.

9 Direct Public Fire Protection Costs includes the direct costs for maintaining and flushing
10 public fire hydrants and the capital costs associated with those public hydrants.

11 **17. Please describe the Attachment AJB-2 Cost of Service Detailed Schedules**

12 A. Attachment AJB-2 consists of several schedules representing the various steps in the cost
13 of service study process:

14 Schedule 1 – Allocation Factors presents the allocation factors applied to the revenue
15 requirements to determine the costs associated with each water system function as
16 previously mentioned (Supply, Treatment/Pumping, Distribution Storage, Distribution
17 Mains, Transmission Mains, Meters, Services, Customer, Fire Protection and Billing).

18 Schedule 2 – Test Year Expense presents the summarization of Test Year Water Revenue
19 Requirements provided by Crowe.

20 Schedule 3 – Transmission and Distribution Expenses displays the booster station specific
21 expenses allocated directly to treatment/pumping function. All other transmission and
22 distribution expenses are re-allocated to specific functions based on fixed asset allocations
23 that reflect Bloomington staff analysis to separate transmission and distribution mains.

1 Schedule 3A – Fixed Asset Allocation presents the allocation of system assets by category
2 to functions used to allocate debt service and PILOT.

3 Schedule 4 – Water Revenue Requirements by Function presents the allocation of Test
4 Year Water Revenue Requirements sponsored by the Petitioner's witness Jennifer Z.
5 Wilson to the defined system functions. Each line item of the revenue requirements is
6 assigned an allocation factor from Schedule 1 based on the type of expense and the
7 department.

8 Schedule 5 – Test Year Water Revenues displays the rate and non-rate revenues provided
9 by Petitioner's witness Jennifer Z. Wilson.

10 Schedule 6 – Water Non-Rate Revenue Allocation displays the non-rate revenues provided
11 by Crowe. Each line item of non-rate revenue is allocated to customer classes based on the
12 weighted average cost of service results for each customer class. This is a common and
13 reasonable approach given that the source of the revenue is not specific to one class of
14 customer and therefore is shared based on the ratio of costs to all customer classes. The
15 non-rate revenues offset the gross cost of service for each customer class.

16 Schedule 7 – Functions and Flows presents a summary of annual water production data for
17 the last four full calendar years provided by Bloomington. The base and extra capacity
18 demands used in this study for the water system were from January 2024 – December 2024.
19 This schedule also shows the utilization of these system demands to allocate the costs of
20 certain functions to the base, extra capacity max day, and extra capacity max hour cost
21 components.

1 Schedule 8 – Units of Service presents the annual water use for each of the customer classes
2 served by Bloomington (Residential, General Service ², Wholesale, IU Master Metered,
3 and Irrigation) for the test year. It shows the calculation of max day and max hour demands
4 by customer class from Bloomington's AMI data and presents the units of service by cost
5 component.

6 Schedule 9 – Fire Protection Units of Service shows fire protection flow needs and the
7 calculated units of service for the extra capacity max day and extra capacity max hour cost
8 components. It also displays the methodology used to distribute fire protection costs to
9 public fire protection and private fire protection categories based on the ratio of equivalent
10 services in each category.

11 Schedule 10 – Unitization displays the calculated unit rate for each cost component (base,
12 max day, max hour, fire protection and customer). This schedule brings together the
13 function costs from Schedule 4, the allocation of those costs to the base, max day, max
14 hour, and customer cost components from Schedule 7, and the Total Units of Service from
15 Schedule 8.

16 Schedule 11 – Water Cost of Service calculates the net cost to serve each customer class
17 and compares the costs with the current revenues from each class to identify the rate
18 adjustment necessary to meet the cost of service and revenue requirements.

19 **18. Please further explain Schedule 4 in Attachment AJB-2 and how costs are allocated
20 to each function.**

² General Service represents the prior Industrial and Commercial classes that are proposed to be consolidated in this application given the declining and limited number of Industrial customers.

1 A. Schedule 4 in Attachment AJB-2 presents the revenue requirements. The expense line
2 items were provided by Crowe and are aggregated by type of expense and department.
3 Each line item of expense is assigned an allocation factor defined on Schedule 1 in
4 Attachment AJB-2. Department expenses associated with Source of Supply were allocated
5 to Supply function. Department expenses associated with Treatment were allocated to the
6 Treatment/Pumping function excluding power and chemicals which are allocated to Supply
7 Function. Department expenses for Customer Accounts were allocated based on the split of
8 expenses between customer, meters and billing. Department expenses for Administrative
9 and General were allocated to each of the functions based on an overall allocation of
10 operations and maintenance expenses. Transmission and Distribution expenses were
11 allocated directly to various functions based on fixed assets as shown on Schedule 3 and
12 Schedule 3A. Debt Service costs are allocated based on Fixed Assets as presented in
13 Schedule 1 and Schedule 3A. Capital expenses are assigned to functions based on a CIP
14 allocation for a 5-Year period as shown on Schedule 12.

15 **19. Please explain the method of allocating Transmission & Distribution main costs?**

16 A. Transmission and Distribution ("T&D") main costs are allocated between the respective
17 functions based on inch-feet of mains, rather than solely on the linear length of the mains.
18 This approach is considered a more precise cost allocation method as it recognizes that
19 costs of mains are a function of both the diameter and length of the mains, rather than
20 simply the length of mains. Moreover, the cost of service analysis incorporates data and
21 analysis provided by Bloomington which allocates the 10" and 12" mains between
22 distribution and transmission. It is important to note that 8" mains were also reviewed, but
23 determined by Bloomington to be performing a distribution function and were therefore

1 fully allocated to distribution. This approach results in a 41% split of main expenses to
2 distribution and 59% to transmission as shown in Schedule 13.

3 **20. Why is the separation of transmission and distribution mains important?**

4 A. It is necessary to recognize that large-volume industrial, wholesale and other large users
5 are often served directly from major transmission mains, whereas smaller users and retail
6 customers are served by both large transmission and small distribution mains. It is
7 important to consider and recognize how each customer class uses the system when
8 establishing their cost of service. In this instance, given the limited number of connections
9 of wholesale customers and Indiana University, and the nature of how these customer
10 classifications connect to the system on typically larger line sizes, it was necessary to
11 isolate smaller distribution mains to avoid allocations of those costs to these customers.

12 **21. Please explain the basis of your allocation of functional costs to the base and extra
13 capacity cost components.**

14 A. The water system includes different facilities, each designed and operated to serve a
15 specific purpose. To ensure adequate service to all customers, the system must be capable
16 of providing not only average day demands but also maximum daily and hourly demands.
17 Schedule 7 of Attachment AJB-2 displays how the costs of each function are allocated to
18 the base and extra capacity components that is consistent with guidance from M1. Supply
19 costs are allocated all to the base cost component. Treatment/Pumping along with
20 Transmission costs are allocated to base and extra capacity max day cost components as
21 these facilities are typically designed to meet max day demands but are also used to meet
22 average day demands (i.e., the base cost component). The allocation of the
23 treatment/pumping and transmission functions to the base component is calculated as a

1 ratio of the average day demands to the max day demands. The remaining treatment costs
2 are allocated to the extra capacity max day cost component. Distribution main costs are
3 allocated to the base, extra capacity max day, and extra capacity max hour costs
4 components as water mains are sized and utilized to meet all three types of demands. The
5 allocation of the distribution mains function to the base component is calculated as a ratio
6 of average day demands to max hour demands. The allocation of the distribution function
7 to the extra capacity max day component is calculated as a ratio of the difference between
8 the max day and average day demands divided by the max hour demands. The remaining
9 distribution main function costs are then allocated to the extra capacity max hour cost
10 component. Distribution storage costs are allocated to base and extra capacity max hour
11 components as these serve to assist utilities in providing an element of system reliability
12 and in the case of facilities such as elevated storage tanks, to meet the maximum hour
13 capacity requirements. The allocation of the distribution storage function is calculated as
14 ratio of average day demands to max hour demands consistent with base extra capacity
15 outlined in M1. The remaining distribution storage costs are allocated to extra capacity
16 max hour cost component. Schedule 10 applies these allocation factors to the functional
17 costs and displays the total costs allocated to each cost component.

18 **22. Please further explain Schedule 7, specifically the water system demands.**

19 A. When evaluating system maximum day and peak hour demands, water production data is
20 often utilized. In this instance, average day, maximum day, and peak hour production data
21 for calendar years 2022-2024 was provided by Bloomington. The 2024 period was utilized
22 as the basis of system average day, max day and peak hour demands for purposes of

1 establishing cost allocations to cost components (and for comparing to noncoincident
2 customer demands from the AMI data).

Monroe Production	Average Day (MGD)	Max Day (MGD)	Max Hour (MGD)
2022	14.23	18.45	21.90
2023	14.10	18.64	22.80
2024	14.59	19.30	24.60

3
4 **23. Please explain the utilization of AMI data to establish maximum day and peak hour
5 demands for each customer class?**

6 A. Bloomington has completed a comprehensive upgrade to its metering infrastructure,
7 transitioning to advanced smart meters or also referred to as AMI. Unlike the previous
8 system, which provided only a single monthly reading, AMI technology enables hourly
9 readings every day. This modernization allows for automated data collection and
10 significantly improves Bloomington's ability to detect and respond to infrastructure
11 issues in a timely and efficient manner. Bloomington has access to detailed AMI
12 information that was provided to Stantec at both daily and hourly intervals for the test
13 year. This enabled the development of peaking factors based on data observations,
14 reducing reliance on assumptions based on usage patterns and generalized industry
15 guidance that are otherwise required in the base extra capacity method.

16 **24. Can you describe the distinction between coincident and non-coincident demand, and
17 explain the rationale for the methodology selected in this analysis?**

18 A. Coincident demand identifies the peak demand period for the entire system and then uses
19 the corresponding demand from each customer class that aligns with that period to
20 determine class peaking factors. In contrast, non-coincident demand captures the individual

1 peak usage of each customer class, regardless of when those peaks occur. The distinction
2 is important in cost-of-service analysis, particularly when allocating capacity-related costs.
3 Based on the principles outlined in M1, the non-coincident demand approach was selected
4 as it distributes peak period costs more in line with demonstrated ability to peak the system.
5 This method can be seen as more reflective of the relationship of each class to system costs
6 over the long-term and allocates some peak costs to all customers, promoting fairness and
7 consistency in rate design. Furthermore, the availability of AMI data enhances the accuracy
8 of non-coincident demand analysis by providing granular, time-specific usage patterns for
9 each customer class, allowing for a more precise assessment of peak demands.

10 **25. Can you explain the non-coincident max day demands calculated for each customer
11 class on Schedule 8 in Attachment AJB-2?**

12 A. The non-coincident max day demands calculated for each customer class on Schedule 8
13 are based on the average day demands and max day factor per AMI data for the respective
14 customer classes. The non-coincident max day factors were derived from AMI data by
15 looking at the max day of water usage for each respective customer class and comparing
16 this to the classes average daily usage. For example, the residential & multifamily class has
17 6,351 kgal of usage on the highest single day and an average water usage of 4,832 kgal for
18 the year. Therefore, taking the maximum day for that class divided by the average gives
19 you a non-coincident max day factor of 1.31 for residential and multifamily. This was
20 performed the same for each respective class. That factor is then applied to the average
21 daily usage to get the non-coincident max day demand shown in Schedule 8.

Customer Classification	Max Day (kgal)	Avg Day (kgal)	Date of Max Day	Non-Coincident Max Day Factor
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Residential	6,351	4,832	Sep 15, 2024	1.31
General Service	3,406	2,381	Aug 29, 2024	1.43
Wholesale	4,027	3,036	Jun 20, 2024	1.33
IU Master Metered	1,264	865	Sep 18, 2024	1.46
Irrigation	2,053	388	Sep 11, 2024	5.29
Total System	17,102	11,502	Aug 28, 2024	1.49

1 **26. How did you evaluate the calculated non-coincident max day demands for**
2 **reasonableness?**

3 A. The aggregate maximum day non-coincident demands calculated from these assumptions
4 are divided by total system average day demands and then compared against the ratio of
5 the coincident maximum day demands of the system to average day demands to measure
6 the system diversity of demand, consistent with Appendix A of M1. The system diversity
7 ratio is typically in the range of 1.1 to 1.4 for the majority of systems, though different
8 system diversity measures may arise for communities, depending upon their specific
9 circumstances and data. This system diversity measure is a method to ensure that the
10 maximum day peaking factors selected for each customer class, based on the data available
11 and the assumptions regarding variation in consumption patterns, likely result in reasonable
12 approximations of the overall class maximum-day demands for cost allocation purposes.
13 M1, Appendix A, page 377. The aggregate max day non-coincident demand factors and
14 the system diversity ratios are shown on Schedule 8. The system diversity ratio of 1.12,
15 supports that the maximum-day peaking factors selected for each of the classes, based on
16 the data available result in reasonable approximations of the overall class maximum-day
17 demands for cost allocation purposes.

18 **27. Can you explain how the non-coincident max hour demands were calculated for each**
19 **customer class on Schedule 8 and how these values are evaluated for reasonableness?**

1 A. The non-coincident max hour factors were derived from AMI data by looking at the max
2 hour of water usage for each respective customer class and comparing this to that class's
3 average hourly usage. For example, the residential & multifamily class has 388 kgal of
4 usage on the highest hour and an average hourly water usage of 201 kgal for the test year.
5 Therefore, taking the maximum hour for that class divided by the average provides you a
6 non-coincident max hour factor of 1.93 for residential & multifamily. This was performed
7 the same for each other respective class. That factor is then applied to the average daily
8 usage to get the non-coincident max hour demand shown in Schedule 8.
9 The aggregate max hour non-coincident demands divided by the total system average day
10 demands can be compared against the ratio of coincident max hour demands of the system,
11 divided by the total average day demands to measure the system diversity of demand per
12 Appendix A of M1. The system diversity ratio is often in the range of 1.1 to 1.4, though
13 different system diversity measures may arise for communities with more atypical
14 customer class usage patterns. This system diversity measure is another method to ensure
15 that the max hour factors selected for each customer class, based on the data available and
16 the assumptions regarding variation in consumption patterns, likely result in reasonable
17 approximations of the overall class max hour demands for cost allocation purposes. M1,
18 Appendix A, page 378. The system diversity ratio of 1.37 supports that the peak hour
19 factors selected for each of the customer classes, based on the data available result in
20 reasonable approximations of the overall class peak hour demands for cost allocation
21 purposes.

22 **28. Can you further explain the total units of service calculated on Schedule 8,
23 specifically, the fire protection public and private units of service.**

1 A. Schedule 8 in Attachment AJB-2 summarizes the units of service for each cost component
2 by customer class. In addition to the units of service for each of the customer classes, units
3 of service for the public and private fire protection services must also be established. The
4 calculation of the fire protection units of service is shown on Schedule 9. Fire protection
5 units of service were determined by estimating the required flow needs for a typical
6 residential fire and large fire (non-residential) based on calls for service data provided by
7 Bloomington. The assumed flows to fight a typical residential fire (1,500 gallons per
8 minute) were assumed for a 2-hour duration, while the assumed flow (3,500 gallons per
9 minute) to fight a large non-residential fire are assumed for a 3-hour duration. Duration
10 and flow estimates are based on assumptions derived from industry guidance and
11 illustrative examples provided in the M1 Manual and are consistent with practices observed
12 in other systems. The flow rates are multiplied by the duration to get a total amount of
13 needed water flow on a max day for each fire. The max hour flows represent the needed
14 flow for one hour for each fire. The flow requirements for each type of fire are added
15 together to get the total fire flow demands of the water system on a max day and max hour
16 basis.

17 The allocation factors used to distribute these required flows to the public and private fire
18 protection customer classes is also calculated on Schedule 9. Bloomington provided a count
19 of all the public fire hydrants (both inside and outside city) served by the Bloomington
20 water system. Bloomington also provided a summary of the number of private fire hydrants
21 and associated accounts served and billed each year. To distribute the fire protection needs
22 between the public system and customers with private systems the total hydrants were
23 normalized to an equivalent service unit using the Hazen-Williams equation for flow

1 through pressure conduits as diameter raised to power of 2.63. Typical fire protection
2 appurtenances like hydrants and sprinkler heads are served by lines of 6" diameter. The
3 demand factors were applied to the number of service lines, assuming 1 dedicated line for
4 each hydrant, and the resulting allocation factors are shown on lines 3 and 9 of Schedule
5 9. As a result, 83.7% of the required fire flows on a max day and max hour basis will be
6 distributed to the public fire protection service and the remainder to private fire protection
7 service. These are summarized in the unit of service table on Schedule 8.

8 **29. Please further explain Schedule 11 in Attachment AJB-2 and summarize the results
9 of the cost of service study?**

10 A. Schedule 11 provides the summary of all the costs allocated to each customer class and
11 compares the assigned costs for each customer class with the projected revenues from each
12 class to identify the level of rate adjustment necessary to align with the allocated revenue
13 requirements of the system. Lines 1 through 53 display the units of service by cost
14 component (base, max day, max hour, and customer) for each customer class calculated on
15 Schedule 8 and Schedule 9 for fire protection. Lines 54 through 106 display the unit costs
16 by cost component determined on Schedule 10. The unit costs were calculated by dividing
17 the allocated costs by the units of service for each cost component.

18 Lines 107 – 111 calculate the cost by component for each customer class, and line 112
19 shows the gross cost to serve each customer class. The gross cost of service is offset by
20 non-rate revenues in Schedule 6 and is allocated to each of the customer classes based on
21 the weighted average of the gross cost of service allocation. Finally, the net cost of service
22 or revenue requirement of each customer class is shown on line 114 and compared to
23 existing revenues on line 115. The table below summarizes the results of the cost of service

1 analysis by customer class. As shown in the table below, and consistent with revenue
2 requirements provided by Crowe, there is an overall need to increase revenues by 30.5%
3 to meet the identified revenue requirements. However, the change in revenue to each
4 customer class varies based upon the cost to serve as discussed in this testimony.

5 The cost of service results reflect a more refined and data-driven approach than prior
6 studies, particularly in the analysis of fire protection services. This updated analysis
7 leverages a more robust dataset, resulting in improved accuracy and more equitable
8 allocation of costs. Additionally, the integration of AMI data has provided more precise
9 peaking factors. Notably, residential peaking factors are lower than previous case, while
10 Irrigation peaking factors are higher. As a result, residential and private fire protection
11 customer class requires an adjustment less than the overall average, while the general
12 service, wholesale, IU Master Metered and Irrigation customer classes require increases
13 greater than the overall average. Public Fire Protection would see an overall decrease.

Customer Classification	Net Cost of Service	Existing Revenue	\$ Change	% Change
Residential	\$12,416,696	\$10,441,284	\$1,975,413	18.9%
General Service	\$5,284,799	\$3,960,772	\$1,324,028	33.4%
Wholesale	\$5,206,490	\$3,536,817	\$1,669,673	47.2%
IU Master Metered	\$1,475,064	\$970,628	\$504,436	52.0%
Irrigation	\$2,084,538	\$770,403	\$1,314,135	170.6%
Fire Protection - Public	\$1,328,061	\$1,604,501	(\$276,440)	(17.2%)
Fire Protection - Private	\$271,921	\$229,488	\$42,433	18.5%
Total	\$28,067,569	\$21,513,892	\$6,553,677	30.5%

14
15 The magnitude of changes required in each customer class can largely be attributed to the
16 change in customer base and water use patterns over time since the last cost of service was

1 completed, as well as changes in nature of Bloomington's cost requirements (and
2 distributions of those requirements) since rates were last established. Stantec recommends
3 that the cost of service be updated every three to five years to account for changes in
4 operation, capital planning, customer base, or customer usage.

5 **30. Please describe how the cost of service study complies with the prior settlement
6 agreement?**

7 A. First of all, Stantec presented and engaged at the four pre-filing meetings to provide
8 transparency, answer questions, and elicit feedback. Stantec considered the input and
9 comments expressed by all parties during the development of the cost of service and rate
10 development process. Furthermore, we evaluated a specific issue that was raised as part of
11 the settlement to be considered in the next cost of service, the appropriateness of a
12 wholesale storage subclass. Given the findings through a review of AMI data it was
13 concluded that a subclass was not warranted, nor would any distinction be of significance
14 given the limited storage costs allocated to the wholesale class. Lastly, the prepared cost of
15 service utilized a model that aligns with the factors outlined in Attachment 4, Paragraph 3
16 of the Settlement Agreement.

IV. PROPOSED WATER RATES AND CHARGES

17 **31. Please briefly describe Bloomington's present water rates and charges.**

18 A. Bloomington's present water rates and charges are comprised of two components; a fixed
19 month charge and usage charge. Usage charges vary by customer classification and are
20 charged for each thousand gallons (kgal) of water used as shown below.

Customer Classification	Rate per 1,000 gallons
Residential	\$4.38
Commercial, Governmental, Interdepartmental	\$3.98
Industrial	\$3.71
Outside Sales	\$3.03
Indiana University Master Metered	\$2.99
Irrigation	\$4.92

1

2 In addition, each user presently pays a monthly fixed charge based upon meter size as

3 shown below.

Meter Size (Inches)	Monthly Fixed Charge
5/8"	\$6.50
3/4"	\$7.93
1"	\$10.68
1 1/2"	\$22.12
2"	\$29.70
3"	\$61.06
4"	\$100.40
6"	\$198.78
8"	\$297.17
10"	\$395.53

4 Customers are also charged a separate rate for public fire protection on a monthly basis,

5 based on the size of their water meter (dependent on whether it is inside or outside city).

Meter Size (Inches)	In City Rate	Outside City Rate
5/8"	\$2.20	\$3.67
3/4"	\$3.28	\$5.52
1"	\$5.48	\$9.21
1 1/2"	\$10.95	\$18.38
2"	\$17.52	\$29.44
3"	\$38.34	\$64.40
4"	\$65.70	\$110.34
6"	\$136.93	\$229.90
8"	\$197.17	\$331.00
10"	\$317.64	\$533.40

1 Private Fire Protection charges are assessed on a monthly basis by connection size.

Connection Size (Inches)	Monthly Rate
4" or Less	\$11.04
6"	\$30.69
8"	\$62.88
10"	\$110.15
12"	\$173.65

2

3 **32. Please explain how the cost of service results are used in the development of the**
4 **proposed rates and charges.**

5 A. A basic premise in establishing fair and equitable rates is that rates should reflect the
6 proportional cost of providing service to each customer class. An equitable rate structure
7 will recognize these differences and reasonable charge those classes for the costs incurred.
8 Rate design efforts use the cost of service results as a guidepost when creating rates and
9 charges, but other factors are also considered, such as customer impacts, affordability, and
10 conservation. As such, the proposed rate schedules were developed in consideration of the
11 proposed revenue requirements, while attempting to mitigate customer impacts. Moreover,
12 the proposed rate structure is intended to enhance transparency and allow customers to
13 have more control on their bill by paying for what they use.

14 **33. Please describe Attachment AJB-3.**

15 A. Attachment AJB-3 consists of schedules representing the various steps in the rate design
16 process:

17 Schedule 1 – Water Customer and Fixed Charge illustrates the calculation of the proposed
18 fixed charge based on the results of the cost of service analysis. This charge is intended to

1 capture the costs associated with the customer and billing functions equally per bill as well
2 as the meters and services functions which are scaled based upon the size of meter.

3 Schedule 2 – Water Unit Rates shows the calculation of an effective unit rate per kgal for
4 each customer class based on the net revenue requirements (i.e., the cost of service after
5 consideration of revenue that will be recovered in the customer charge shown on Schedule
6 1) and the annual billable units for each class. Lines 12-16 show any capped adjustments
7 to unit rates which are further discussed in subsequent sections.

8 Schedule 3 – Fire Protection Cost Recovery & Rates shows the calculation of fire
9 protection charges based on the cost of service results from Schedule 11 for public and
10 private fire protection in Attachment AJB-2.

11 Schedule 4 – Rate Schedule and Projected Revenues display the current and cost of service
12 schedule of rates and charges and revenues.

13 Schedule 5 – Example customer impacts based on different combinations of meter size and
14 usage levels based upon rates per Schedule 4.

15 **34. Please describe the approach used to establish proposed rates while moving toward
16 cost of service rates?**

17 A. Changes in revenue recovery are needed for all customer classes; however, some of the
18 needed changes in certain customer classes are significant. For example, the Irrigation
19 customer class needs to increase revenue by 170.6% to meet its revenue requirements
20 alone. The following rate design criteria were followed to balance the competing interests
21 of achieving cost-based rates and mitigating rate impacts:

22 1) Limit the max increase for any class to 4x the overall increase of 30.5%. The maximum
23 increase using this guidance would be 122%. The Irrigation customer class is the only class

1 under the cost of service who exceeds 122% and would be capped instead at 4x in
2 consideration of the historical context of rate setting for this service and magnitude of
3 variance to cost of service results. In the prior rate case, the final irrigation rate increases
4 were slightly more than 2x the average system increase, which constrained the class from
5 reaching its full cost of service. Given the growing disparity between current revenues and
6 the updated cost of service, and peaking factors exceeding what they were in prior studies,
7 Bloomington is proposing raising the cap for irrigation rate increases to 4x the average
8 system increase. This adjustment is intended to send a stronger price signal and promote
9 better alignment with the class's actual cost of service and mitigate the increases on other
10 customer classes.

11 2) Merge the Commercial and Industrial class into a General Service Class. The industrial
12 rate was established long ago when Bloomington had a larger industrial base. The number
13 of industrial customers has declined significantly, and few customers remain on this rate.
14 Bloomington recommends that the remaining industrial customers be placed into the
15 Commercial class to be called General Service. Demand patterns from AMI data also
16 conclude similar usage patterns between these classes furthering the recommendation to
17 merge.

18 3) As part of the rate design process, monthly fixed charges and usage rates were developed
19 to align with the cost of service. The monthly fixed charge which is applied across all
20 customer classes is based on meter, service, customer and billing related costs. Meter and
21 Service costs are scaled according to meter equivalency factors to reflect infrastructure
22 demands, while customer and billing related costs are distributed evenly across all meter
23 sizes. Once fixed costs are allocated, the remaining cost of service for each customer class

1 is used to develop their respective usage rate based upon billable units. Schedule 1 in
2 Attachment AJB-3 shows the calculation of the fixed charges for all customer classes.

3 **35. Have you prepared a schedule that compares proposed rates and charges to present
4 rates?**

5 A. Yes, Schedule 4 in Attachment AJB-3 presents a comparison of the current rates and
6 charges to the proposed rates and charges for the proposed revenue requirements.

7 1) The monthly fixed charges will continue to vary based on the size of meter. The
8 maximum increase of 25.5% occurs on the 5/8" meter, but larger meters above a 1"
9 will see a decrease on the fixed charge. The table below shows the current and cost of
10 service charges for the monthly fixed charge.

Meter Size	Current	Cost of Service	\$ Change	% Change
5/8"	\$6.50	\$8.16	\$1.66	25.5%
3/4"	\$7.93	\$9.58	\$1.65	20.8%
1"	\$10.68	\$12.41	\$1.73	16.2%
1 1/2"	\$22.12	\$19.50	(\$2.62)	(11.8%)
2"	\$29.70	\$28.01	(\$1.69)	(5.7%)
3"	\$61.06	\$47.87	(\$13.19)	(21.6%)
4"	\$100.40	\$76.23	(\$24.17)	(24.1%)
6"	\$198.78	\$147.14	(\$51.64)	(26.0%)
8"	\$297.17	\$232.23	(\$64.94)	(21.9%)
10"	\$395.53	\$331.50	(\$64.03)	(16.2%)

11 2) Usage or Commodity rates will continue to vary by customer class. Rates were
12 established to achieve cost of service while capping the overall increase to 122% for
13 Irrigation. The Industrial rate is merged with the Commercial, Governmental,
14 Interdepartmental usage rate into the General Service. The following rates are at cost
15 of service.

Customer Class	Current	Cost of Service	\$ Change	% Change
Residential	\$4.38	\$5.31	\$0.93	21.3%
General Service ³	\$3.98	\$5.83	\$1.85	46.4%
IU Master Metered	\$2.99	\$4.76	\$1.77	59.1%
Wholesale	\$3.03	\$4.49	\$1.46	48.3%
Irrigation	\$4.92	\$10.92	\$6.00	122.0%

1 Irrigation commodity rate will continue to vary from cost of service due to the 122% cap.

2 The cost of service study identified irrigation rates of \$14.20 per 1,000 gallons, an 188.6%
3 increase over the current rate of \$4.92 per 1,000 gallons. In discussions with Bloomington,
4 it was identified that irrigation usage and water usage in general is highly elastic, meaning
5 that as prices increase, usage tends to decrease. Irrigation usage may have a higher elasticity
6 than domestic, commercial or industrial water usage. As customers respond to the higher
7 rates, future irrigation usage may be reduced. This change may result in modifications to
8 the customer usage pattern and a corresponding change to the cost of service based rate. If
9 the rates were increased to the full \$14.20, it is possible future cost of service studies would
10 identify a lowering of the rate. Three concerns were identified in discussion on rate
11 adjustments for irrigation:

- 12 a. An increase from \$4.92 to \$14.20 might result in “rate shock” and larger
13 customer bill impacts.
- 14 b. The increase may result in a “yo-yo” effect, with increasing rates resulting in
15 modifications to usage, and subsequent cost of service studies identifying rate
16 decrease.

³ Represents the current rate for the commercial, governmental and interdepartmental class.

- c. Customers may roll back their usages resulting in an under-recovery of revenues needed to meet revenue requirements and operate the system, which would cause another rate increase sooner than might otherwise be necessary. This result would not be in the best interests of any customer. Through the gradual adjustment, Bloomington expects Irrigation customers will adapt to the new rates by adjusting their usage patterns. For example, irrigation customers might start using more water efficient sprinkling systems, avoiding overspray, deploying moisture sensors, replacing water-intensive landscaping with less water-intensive landscaping, and so forth. In the next cost of service study, Bloomington expects that the cost of service increase will not likely need to be as substantial as the increase demonstrated in the cost of service study presented in this Cause due to the expected change in customer behaviors and increase in capped adjustment. This is consistent with the concept of a cost of service study as a snapshot in time of usage patterns that I described earlier.

3) Public Fire Protection is seeing a decrease due to general changes in system cost and demand characteristics compared to the previous rate case. As part of the update, fire protection service assumptions for calls of service were reviewed as well as recognizing that hydrant-related costs are lower than last rate case. This results in a lower cost of service for the Public Fire class relative to the revenues currently being collected. The table below shows the cost of service rates for public fire protection.

Meter Size	Current (In City)	Cost of Service (In City)	\$ Change	% Change
5/8"	\$2.20	\$1.93	(\$0.27)	(12.3%)
3/4"	\$3.28	\$2.90	(\$0.39)	(11.7%)
1"	\$5.48	\$4.83	(\$0.66)	(12.0%)

1 1/2"	\$10.95	\$9.65	(\$1.30)	(11.9%)
2"	\$17.52	\$15.44	(\$2.08)	(11.9%)
3"	\$38.34	\$28.95	(\$9.39)	(24.5%)
4"	\$65.70	\$48.25	(\$17.46)	(26.6%)
6"	\$136.93	\$96.50	(\$40.44)	(29.5%)
8"	\$197.17	\$154.40	(\$42.79)	(21.7%)
10"	\$317.64	\$221.95	(\$95.72)	(30.1%)
Meter Size	Current (Out City)	Cost of Service (Out City)	\$ Change	% Change
5/8"	\$3.67	\$2.64	(\$1.03)	(28.1%)
3/4"	\$5.52	\$3.96	(\$1.56)	(28.3%)
1"	\$9.21	\$6.60	(\$2.61)	(28.3%)
1 1/2"	\$18.38	\$13.20	(\$5.18)	(28.2%)
2"	\$29.44	\$21.12	(\$8.32)	(28.3%)
3"	\$64.40	\$39.60	(\$24.80)	(38.5%)
4"	\$110.34	\$66.00	(\$44.34)	(40.2%)
6"	\$229.90	\$132.00	(\$97.90)	(42.6%)
8"	\$331.00	\$211.20	(\$119.80)	(36.2%)
10"	\$533.40	\$303.60	(\$229.80)	(43.1%)

1 4) Private Fire Protection rates are increasing to cost of service.

Connection Size (Inches)	Current	Cost of Service	\$ Change	% Change
4" or Less	\$11.04	\$15.83	\$4.79	43.4%
6"	\$30.69	\$35.84	\$5.15	16.8%
8"	\$62.88	\$70.36	\$7.48	11.9%
10"	\$110.15	\$122.29	\$12.14	11.0%
12"	\$173.65	\$194.25	\$20.60	11.9%

2 36. Have you considered individual customer bill impacts as part of the process to develop
 3 the proposed rates and charges?

4 Yes, bill impacts for all customers were calculated for cost of service adjustments. Given
 5 the changes to the rate structure and the needed revenue increases there are a wide range
 6 of impacts. Generally, residential customers with consumption less than 5 kgal will see an
 7 increase of approximately 16%-20%. Larger residential customers above 10 kgal would

1 see about a 21% increase. General service customers at a smaller 3/4" meter will see an
2 increase of 20.5% for 1 kgal usage and around 38.7% for a 10 kgal user. General service
3 customers at a larger 1" meter will see an increase of 38.0% for 15 kgal usage and around
4 40.9% for a 25 kgal user.

5 A summary of sample bill analysis performed for the revenue requirements was presented
6 to Bloomington and is included on Schedule 5 in Attachment AJB-3.

Residential, 5/8" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
0	\$8.70	\$10.09	\$1.39	16.0%
1	\$13.08	\$15.40	\$2.32	17.8%
2	\$17.46	\$20.72	\$3.26	18.7%
3	\$21.84	\$26.03	\$4.19	19.2%
4	\$26.22	\$31.35	\$5.13	19.5%
5	\$30.60	\$36.66	\$6.06	19.8%
10	\$52.50	\$63.23	\$10.73	20.4%
15	\$74.40	\$89.80	\$15.40	20.7%
20	\$96.30	\$116.37	\$20.07	20.8%
25	\$118.20	\$142.94	\$24.74	20.9%
30	\$140.10	\$169.51	\$29.41	21.0%
50	\$227.70	\$275.80	\$48.10	21.1%

7

General Service, 3/4" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
1	\$15.19	\$18.30	\$3.11	20.5%
5	\$31.11	\$41.61	\$10.50	33.8%
10	\$51.01	\$70.75	\$19.74	38.7%

General Service, 1" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
15	\$75.86	\$104.66	\$28.80	38.0%
20	\$95.76	\$133.79	\$38.03	39.7%
25	\$115.66	\$162.93	\$47.27	40.9%

8

1 V. CONCLUSION

2 38. Does this conclude your pre-filed direct testimony at this time?

3 A. Yes.

VERIFICATION

I affirm under the penalties for perjury that the foregoing testimony is true to the best of my knowledge, information, and belief.



Andrew J. Burnham



Andrew Burnham

Vice President

Mr. Burnham is the Vice President and Global Practice Leader of Financial Services at Stantec. Andy has extensive experience in conducting as well as overseeing cost of service allocations, integrated financial planning and affordability analyses, and development of alternative rate and fee structures for a variety of utility systems, including water, wastewater, reclaimed water, stormwater, solid waste, recycling, electric, and natural gas. He has been recognized as an industry expert as part of providing testimony in utility rate-related regulatory proceedings in multiple states and territories (including Florida, Michigan, Arizona, and the United States Virgin Islands), as well as before the Federal Energy Regulatory Commission. He has led over 500 studies for 150+ communities, and has supported the issuance of \$1 billion of bonds for projects in the past 5 years.

Mr. Burnham is currently serving on multiple AWWA and WEF Committees, and was actively involved in the recent update to AWWA Manual M1 – Principles of Water Rates, Fees and Charges, notably in regards to outside-city retail rates, wholesale rates, and reuse rates. In addition, Andy led the development of the Cash Reserve Policy Guidelines Report recently published by the AWWA.

EDUCATION

Bachelors of Business Administration, Lake Superior State University, Sault Ste. Marie, Michigan, 2000

MEMBERSHIPS

Trustee of the Management & Leadership Division, American Water Works Association

Member, Utility Resource Management Committee, The National Association of Clean Water Agencies

Member, Florida Section, Government Finance Officers Association

Rates and Charges Committee, American Water Works Association

Financial Accounting & Management Controls Committee, American Water Works Association

Management Committee, Water Environment Federation

PROJECT EXPERIENCE

WATER RESOURCES

Western Area Water Authority | North Dakota

Andy is serving as the Project Manager on a financial feasibility study for the Authority as required by the 2017 legislature. As part of the study, our team quantified the amount of excess capacity available on a locational basis to evaluate the potential of firm and interruptible service offerings that would effectively change the Authority's primary role to more of a pure wholesaler of water to local private water companies. The study incorporated potential revenue from a new concession-based business model, with the intent of stabilizing cash flows and achieving financial sustainability to support continued domestic rural water supply in the region.



James City Service Authority | Virginia

Andy was the Project Manager for a comprehensive rate study for the Authority. He led the development of rate structure modifications that ensured the Authority's rates conformed to accepted industry practice and reflected the appropriate distribution of system costs, while achieving its policy objectives, of fiscal stability, affordability, and conservation. In light of declining demands, the Authority had significant concerns relative to its ability to recover a portion of the fixed costs of the system, so we developed a two-part rate structure inclusive of a fixed monthly readiness-to-serve charge and inclining block water conservation rates. We also evaluated the Authority's system and local facilities charges to ensure they recovered the initial cost of capacity for infrastructure utilized to serve new connections in the future.

City of Cleveland - Water and Wastewater Cost of Service Study | Cleveland, Ohio | Project Director

Andy oversaw all work completed during this comprehensive cost of service and rate study for the City's water and wastewater utilities. He provided guidance relative to the development of alternative ten-year financial management plans, reserve policies, and capital funding strategies. Andy also directed the completion of benchmarking activities relative to infrastructure spending for underground assets.

TOHO | Florida | Technical Advisor

Andy recently served as technical advisor for a reclaimed water cost of service and rate design for the Authority. The study included a detailed cost allocation analysis that evaluated the current level of cost recovery from existing rates and examined alternative rate designs for the Authority, including the resulting impacts to retail and bulk customers. The Authority adopted the recommendations developed during the study, which included modifications to provide a consistent level of cost recovery amongst all customer classes and a modified retail reclaimed water rate structure that is consistent with its potable water rate structure.

JEA, Jacksonville | Florida | Project Manager

Mr. Burnham has served as our project manager for multiple studies with the JEA, including 1) understanding the forms of business organization being applied to the sewer business, and practices used in the industry for conversion of septic tanks to central sewer service, 2) identifying the costs associated with treatment of landfill leachate from the City of Jacksonville to support new service rates, and 3) a comprehensive cost of service and rate design study to support the update of all fees and charges using more detailed data (including hourly customer metering data) and granular approaches intended to result in enhanced equity, transparency, conservation, and affordability of service to its diverse customer base.

Town of Front Royal | Virginia | Project Manager

Mr. Burnham served as project manager for a water and sewer comprehensive cost of service and rate study and subsequent updates to the initial study. He used our FAMS-XL model to develop a ten-year financial management plan and plan of annual rate adjustments to meet all of the utility's financial obligations in each year of the projection period. Mr. Burnham developed three alternative conservation rate structures for consideration that would recover the identified cost of service from the financial management plan and prepared customer impact analyses for each alternative. The analysis also included the review of and updates to current outside-town rate differentials.

Diamondhead Water & Sewer District | Diamondhead, Mississippi | Project Manager

Mr. Burnham served as the project manager for a comprehensive cost of service for the District. During the study, we provided updates to the water and sewer rates, taking into account capital funding challenges resulting from FEMA reimbursement delays. Mr. Burnham has also managed the preparation of a Bond Feasibility Report and a benchmarking analysis in which we compared the District's operations to industry standards and local entities.

Orange County | Florida | Project Manager

Mr. Burnham has served as the project manager or a lead consultant for the County for over 15 years. During that time, he has conducted several revenue sufficiency analyses to ensure adequate revenue to meet projected cost requirements, periodic water and wastewater impact fee studies, water and sewer rate structure analysis, reclaimed water cost of service study and presentations of the results to management, elected officials and other stakeholders. In addition, he led a bond feasibility study for the County including preparation of a bond report. The recommendations from our services have generally been implemented and the utility has been able to maintain a very good credit rating with low rates and annual rate adjustments.

Town of Cary | North Carolina | Project Manager

Mr. Burnham served as the project manager for a Bond Feasibility Study for the Town which included the development of a Financial Model. During the study, Mr. Burnham led the development of a multi-year financial forecast using our FAMS-XL model. He developed a capital financing plan that included alternative funding options to minimize the rate impacts on existing rate payers as well as to comply with existing bond covenants. He worked closely with staff to prepare a bond feasibility report consistent with prior reports, modified based upon his experience.

Marion County | Florida | Project Manager

Mr. Burnham has served as the project manager for the County for over ten years. During this time, he has managed a variety of initiatives including multiple water, wastewater, and irrigation revenue sufficiency analysis to ensure adequate revenues to meet projected cost requirements; development of inclining block rates, as well as a plan for common rate structure through the County which combined five disparate rate districts into one common inclining block rate structure; and development of a detailed customer impact analysis to demonstrate the impact of the new rate structure upon the cost of service to all customers classes in each rate district.

City of Greenfield | California | Project Manager

Andy served as project manager during the conduct of a long-overdue comprehensive water and wastewater rate study for Greenfield. Rates were designed to fund the utility's projected costs of providing service while proportionally allocating costs among customers, providing a reasonable and prudent balance of revenue stability, and complying with the substantive requirements of California Constitution Article XIII D, Section 6 (Prop 218).

Pasco County | Florida | Project Manager

Andy was the project manager for the County's water, sewer & reclaimed water rate study. The study included a five and ten-year revenue sufficiency analysis during which he reviewed alternative capital improvement funding sources, target debt service coverage levels, levels of operating and capital reserves, and other financial policies/goals that affect the financial performance of the utility systems and future revenue requirements. He analyzed their financial goals and objectives and scenarios regarding alternative capital improvement spending programs, cost escalation factors, levels of impact fees and miscellaneous charges, changes in usage patterns, and elasticity of demand in response to rate increases and conservation measures.

Orange Water & Sewer Authority | North Carolina | Project Manager

Mr. Burnham has served as project manager for OWASA for water,

wastewater, and reclaimed water financial consulting services for nearly ten years. He has conducted several studies including several long-term financial plans, detailed cost allocation to support rate design, evaluation of affordability for low-income users, and bond feasibility studies.

City of Chesapeake | Virginia | Project Manager

Mr. Burnham served as the project manager for a comprehensive cost of service rate study, during which we 1) developed an updated multi-year financial forecast and plan of annual rate adjustments, 2) evaluated peak demands and cost allocations by customer class, 3) assessed the customer impacts of alternative rate structures by class of customer, 4) updated specific service charges and connection fees, 5) reviewed billing practices and made recommendations for improvements, and 6) provided customized modeling tools for the City's future use. The study culminated in the City's successful transition from a single rate structure for all customer classes to different rates and rate structures for each defined customer class.

Pere Marquette Township | Michigan | Project Manager

Mr. Burnham served as project manager for the Township in negotiating their wholesale water supply rate with their provider. After lengthy negotiations, the parties agreed to a rate structure which reduced the Township's purchased water costs and provided incentive for the attachment of a major user to the Township's system. Once purchased water costs were finalized, expected revenues reflecting the new customer addition, operating, debt, and capital costs were developed for the Township. This allowed the Township to examine the future sustainability of their operations. Water and sewer rate recommendations were presented to the Township's Board.

City of Punta Gorda | Florida | Project Manager

Andy conducted a comprehensive water and wastewater rate study involving the development of: a long-term financial plan of annual rate adjustments, full-cost recovery impact fees for consideration, and rate structure modifications of both the tiers and block rates to encourage conservation. Andy assisted the City by providing a detailed cost-of-service analysis which isolated water and sewer service costs. He also developed and updated several miscellaneous fees which included: fire protection fees, treated water rates, and irrigation rates. As part of the study, he identified the drivers of rate adjustments and their impacts to various customer types and presented the results to management and elected officials.

City of Denton | Texas | Project Manager

Andy led a comprehensive cost of service and rate design study for the City's water and sewer utilities. The study included the development of a ten-year financial management plan, including identification of annual rate increases, amount and timing of required borrowing to fund the capital improvement program, establishment of proper reserve levels, and maintenance of adequate debt service coverage levels. An important component in the financial management plan for the City was a rate stabilization reserve to address the issue of revenue volatility due to weather conditions and demand reductions.

City of Venice | Florida | Project Manager

Mr. Burnham has served as project manager for the City since 2012. He managed a comprehensive water and sewer rate study during which he utilized our FAMS-XL model to evaluate the adequacy of the revenue provided by the Utility's current rates and charges, and he also reviewed the Utility's current rate structure and developed modifications based upon legal precedent, conformance to accepted industry practice, an equitable distribution of costs, promoting resource conservation, and customer impact objectives. He led a series of work sessions with a Stakeholder Work Group, comprised of representatives from the community, which unanimously endorsed our recommendations, and were approved by the City Council.

Henrico County | Virginia | Project Manager

Mr. Burnham served as the project manager for a rate study detailing revenue requirements, cost of service allocations, financing

alternatives, and recommended rates and fees. The Study included a ten-year projection of all operating costs and capital improvement costs and the determination of the annual revenue required to support those costs. Notably, he reviewed and made recommendations regarding cost of service studies that were prepared by the County related to purchased water from other entities in the area.

City of Naples | Florida | Project Manager

Andy served as the project manager for the City's comprehensive water and sewer rate study. Andy worked with City staff to customize a multi-year financial forecasting model. He also reviewed the current water and sewer rate structures and developed modifications to ensure the City's rates conformed to accepted industry practice and reflected the appropriate distribution of system costs, while providing cost incentive to encourage water conservation.

Brunswick-Glynn County Joint Water & Sewer Commission | Georgia | Project Manager

Mr. Burnham has 1) developed annual ten-year financial management plans for the water and sewer systems within the JWSC's two districts, 2) prepared loan and bond feasibility reports, 3) calculated updated water and sewer capital tap fees (impact fees) for each district, 4) calculated public and private fire protection charges, 5) developed a uniform conservation rate structure for its two service districts, and 6) prepared a detailed rate manual that explains the purpose, intent, and structure of all its rates, fees, and charges.

City of St. Petersburg | Florida | Project Manager

Mr. Burnham has served as project manager for the City for over 10 years of annual water, sewer and reclaimed water rates studies. Annually, he manages an update to the multi-year financial plan, detailed cost allocation analyses of the water, wastewater and reclaimed water costs and evaluation of rate structures. He has also providing litigation support for the City along with support in the issuance of revenue bonds.

FINANCIAL SERVICES AND MANAGEMENT

Western Area Water Authority | North Dakota | Project Manager

Andy served as the project manager on a financial feasibility study for the Authority as required by the 2017 legislature. As part of the study, our team quantified the amount of excess capacity available on a locational basis to evaluate the potential of firm and interruptible service offerings that would effectively change the Authority's primary role to more of a pure wholesaler of water to local private water companies. The study incorporated potential revenue from a new concession-based business model, with the intent of stabilizing cash flows and achieving financial sustainability to support continued domestic rural water supply in the area.

City of Ann Arbor | Michigan | Project Manager

Mr. Burnham led a detailed cost of service study that evaluated multiple forecasts of revenue requirements and rate adjustments with stakeholders under a variety of assumptions and capital funding strategies. As part of the study, we analyzed the City's available data, customer usage patterns (on a monthly, daily, and hourly basis) past studies, and objectives to determine appropriate customer classes, cost of service methodologies, and rate structures that satisfied annual revenue requirements, adhered to cost of service, promoted conservation, and enhanced affordability. Notably, our review of available data led to the creation of a cost-based tiered rate structure and creation of a new multifamily rate classification.

City of Clearwater | Florida | Project Manager

Mr. Burnham has served as project manager for the City's annual water, sewer, reclaimed water, solid waste, and recycling and stormwater rate studies. Each year, he oversees a detailed analysis of historical customer demand data, including the development of multi-year projections of the same based upon current economic and environmental conditions. As part of each study, a multi-year

financial forecast and rate adjustment plan is developed for each utility. Mr. Burnham also developed rate structures for the City that ensure fair and equitable rates and conformance to accepted industry practice and legal precedent. Each study included presentations of the results to City management, elected officials, and stakeholders.

City of Olathe | Kansas | Project Director

Andy served as the project director for a Comprehensive Utility Rate Study for the City. For each service – including Solid Waste, Water, Sewer, and Stormwater – we developed customized financial models including ten-year financial plans and identification of alternative plans of rate adjustments, reviews of alternative capital spending and operational scenarios, and other sensitivity analyses. Andy provided guidance to support the detailed cost allocation analyses for each fund, and development of alternative rate structures to ensure the City is charging fair and equitable rates for each service.

Union County, North Carolina | Project Manager

Mr. Burnham has served as project manager for the County's water & sewer financial planning model and bond feasibility study. He developed the financial planning model to simulate the utility system's particular financial dynamics over a 10-year planning horizon, including the specific financial structure and flow of funds associated with the Bond Feasibility Study.

Pinellas County | Florida | Project Manager

Andy has served as the project manager for the County for nearly ten years, including a comprehensive Water, Wastewater and Solid Waste Rate Study and several annual updates. During these studies, Mr. Burnham has used our FAMS-XL model to develop ten year financial plans for the water, sewer and solid waste enterprise funds. He has also conducted a benchmarking analysis, assisted County staff in evaluating the underlying cost of operations, and conducted detailed cost allocation and overhead studies for the Utilities Department.

City of Tempe, Arizona | Project Manager

Mr. Burnham served as the project manager on a recent Water and Sewer Rate Study for the City. The study included the development of several alternative multi-year financial plans and corresponding plans of annual rate adjustments. We also completed a detailed cost of service allocation analysis and rate design study, which resulted in recommendations for adjustments to enhance specific linkages to cost of service, and consider reasonable irrigation for larger lots sizes while continuing to provide affordability and conservation pricing for excessive use. Finally, we participated in multiple special-purpose stakeholder meetings to educate the community on the process and the new rate structure.

Water and Wastewater System Advisory | Nashville, Tennessee | Project Manager

Andy has served in multiple advisory roles to the District to address complex issues related to its multi-jurisdictional water and wastewater system. One of his first assignments was to customize a financial planning model to reflect the District's operations. He also worked collaboratively to create a financial forecasting tool in alignment with the current budgeting and capital planning processes.

Town of Gilbert | Arizona | Project Manager

Andy served as the project manager for a comprehensive Water, Sewer, Reclaimed Water, Environmental Services (Sanitation), and Stormwater Rate Study (Study) for the Town. As part of the study, for each utility system, we performed a revenue sufficiency analysis, detailed cost of service allocation, and rate structure analysis. We developed several modifications to the Town's existing rate structures, notably including a new inclining block water rate structure. Mr. Burnham also completed a cost allocation study for the wastewater system and a stormwater rate program feasibility study.

STORMWATER

City of Bismarck | Bismarck, North Dakota | Project Manager

Andy served as the Project Manager to lead the City in its comprehensive Water, Wastewater and Stormwater Rate Study. During this studies, Andy and our team helped City staff bring stakeholders together in evaluating solutions for rate structure and implementation plan recommendations. The project included justifying customer classifications with the use of AMI billing data, and detailed cost allocations in support of significant changes to customers' utility rates.

City of St. Petersburg - Water Resources Rate Studies | St. Petersburg, Florida, United States | Project Manager

Mr. Burnham created an innovative, data-driven method to understand the impacts of implementing a tier-based rate structure. Specifically, the method captured the impervious area for about 1,300 residential properties, and ensured that the properties included in the sample were consistent with the residential property size distribution of the full City. The percentage of impervious area to parcel size from the sample was applied to all residential parcels to establish an estimated impervious area database for creating a tiered structure and evaluating customer impacts. He then employed a novel data visualization approach that allowed for on-the-fly changes to the rate structure and real time GIS feedback, including a map illustrating the location of residential parcels and bill impacts. In this transparent and consensus-building way, The City and its stakeholders were able to see the likely impacts of alternative residential tier-based rate structures prior to proceeding with a very different fee schedule.

Stormwater Rate and Service Assessment | Ann Arbor, Michigan | Project Manager

Andy reviewed the level of service being provided in this comprehensive stormwater rate and level of service assessment. He looked at multiple areas and identified alternative options along with their corresponding cost and rate implications. Additionally, Andy conducted a series of interactive work sessions with representatives of various customer groups within the community to prioritize the identified level of service enhancements.

City of Columbia | Missouri | Project Manager

Andy managed a comprehensive stormwater and sewer cost of service rate studies for the City. He performed a revenue sufficiency analysis in order to develop a multi-year plan of rate revenue increases to satisfy the annual operating, debt service, and capital requirements of each utility as well as maintain adequate operating reserves. He then reviewed the rate structure (including evaluation of rates for wholesale users), and developed recommended modifications to ensure that the rates conformed to accepted industry practice and reflect a fair and equitable distribution of system costs.

City of North Port | Florida | Project Manager

Andy managed the development of an alternative cost apportionment methodology and resultant alternative road and drainage (stormwater) assessments for the City. The methodology focused on the drainage portion of the assessment, but also included a detailed apportionment of costs to the road, mowing, and drainage functions. We obtained relevant parcel data and developed compilation programs to facilitate calculation of assessments using the alternative cost apportionment methods evaluated. He has conducted periodic updates to the assessment.

PUBLICATIONS

Westover K., A. Burnham. Balancing Storm Water Management Costs with Citizen Engagement. *Storm Water Solutions*, 2020.

Zieburtz. W., M. Coopersmith, and A. Burnham. Water Reuse Cost Allocations and Pricing Survey. *American Water Works Association*, 2019.

Bui, A., A. Burnham, W. Zieburtz. Survey Results Provide Water Reuse Cost Allocations and Pricing Guidance. *Journal American*

Water Works Association, 2019, pp. pp. 60-63..

Burnham, A., D. Hyder and P. Luce. Toho Water Authority's Unique Approach to Pricing Irrigation Water. *Florida Water Resources Journal*, 2019, pp. 56-59.

Refining Stormwater Rates and Improving Community Support. *American Water Works Association Annual Conference & Exposition*. Las Vegas, NV, 2018.

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Burnham, A. (co-author). Money Matters - Utility Cash Reserves. *Journal AWWA*, 2018.

Paying for Stormwater - Engaging the Community. *American Public Works Association Annual Conference (PWX)*, Orlando, FL, 2017.

Can Conservation Rates be Tied to the Cost to Serve?. *American Water Works Association Annual Conference & Exposition*, Philadelphia, PA, 2017.

Reclaimed Water Expansion:

An Approach that Makes Sense. *American Water Works Association Annual Conference & Exposition*, Philadelphia, PA, 2017.

Interactive Modeling Process to Improve Fiscal Stability and Sustainability. *Michigan Township Association Annual Meeting*, Traverse City, MI, 2014.

Utility Ratemaking & Management. *North Carolina Government Finance Officers Association Summer Conference*, Wrightsville Beach, NC, 2016.

Rate and Fee Panel Discussion, a National Financial Perspective. *AWWA Michigan Sector*, Northville, MI, 2017.

Cost-of Service Based Conservation Rates, Evolving from Art to Science. *Utility Management Conference*, Tampa, FL, 2017.

Water & Sewer Rate Studies. *Michigan Governmental Finance Officers Association*, Lansing, MI, 2015.

High Level Rate Making. *Florida Water Environment Association Chapter Luncheon*, Sarasota, FL, 2014.

Reclaimed Water Cost of Service Studies, an Advanced Example. *Water Reuse Symposium*, Seattle, WA, 2015.

Tackling Utility Rates the Right Way. *Michigan Municipal League Annual Convention*, Marquette, MI, 2014.

Features of Successful Inclining Block Water Conservation Rate Structures. *Texas Water Conservation Association Annual Meeting*, Austin, TX, 2015.

Co-Author, Long-Term Financial Modeling and Sustainability Analysis. *Florida Governmental Finance Officers Association School of Government*, Sarasota, FL, 2013.

PRESENTATIONS

Financial Instruments to Support Sustainability & Addressing Customer Equality and Affordability. *Canadian Water Network Blue Cities*, 2019.

Lessons Learned: Asset Management Plan Analysis. *Manitoba Planning Conference*, 2019.

Cost Allocation and Rate Design: Water. *IPU's Advanced Studies Program*, 2019.

Defining Affordability: Is Water a Right? (Panel Discussion). *2018 Water Finance Conference*. Washington, DC, 2018.

Lessons Learned - Integrating AMP Findings into a Sustainable Financial Plan. *Asset Management Seminar*. Michigan, 2019.

Rate and Budget Planning for Utilities. *Florida Section of the American Water Works Association Region IV Spring 2018 Seminar*, 2018.

Expert Witness Experience | Utility Ratemaking Issues

AGENCY / STATE	PROJECT DESCRIPTION	YEAR
Arizona	Testimony in Docket No. WS-01303A-02-0867, et. al before the Arizona Corporation Commission on behalf of the Town of Youngtown relative its utility provider's proposed increase in revenue requirements and rate adjustments.	2003
Delaware	Direct and rebuttal reports as well as deposition before the American Arbitration Association in Case No. 01-19-0000-8779 on behalf of the City of Wilmington relative to the basis and methodology employed by the City in allocating wastewater treatment costs and establishing wholesale sewer rates.	2021
Federal Energy Regulatory Commission	Testimony in Docket No. ER03-574-000, et. al, relative to appropriate cost of service allocations and pricing of short and long-term electric transmission service within and between regional transmission organizations, including utility revenue sharing mechanisms.	2003
	Testimony in Docket No.: 04-0007-0011-0001 before the St. Johns County Water & Sewer Authority relative to the calculation of additional water rate revenue required to recover the return of and on water plant investments on behalf of a private, investor-owned utility (Intercoastal Utilities, Inc.).	2004
	Affidavit and deposition in Case No. 8:09-CV-01317-T-33MAP before the United States District Court, Middle District of Florida, Tampa Division on behalf of the City of St. Petersburg, Florida relative to the basis and methodology employed by the City in setting its wholesale sewer rates.	2009
Florida	Affidavit in Case No. 12-3155-CAB before the Fifth Judicial Circuit Court in and for Marion County in support of the acquisition of and rate structure for a private water and sewer system on behalf of the City of Dunnellon.	2013
	Testimony in Case No. CACE22013802 before the Seventeenth Judicial Circuit Court in and for Broward County in support of the cost allocation methodology and capital funding plan for the stormwater management system on behalf of the City of Fort Lauderdale.	2022
Indiana	Rebuttal testimony in Cause No. 45533 before the Indiana Utility Regulatory Commission on behalf of the City of Bloomington relative to cost of service and rate design aspects of proposed water rates and charges.	2021
	Direct testimony in Cause No. 45838 before the Indiana Utility Regulatory Commission on behalf of the City of Marion relative to cost of service and rate design aspects of proposed water rates and charges.	2023
	Affidavit in Case No. U-13739 before the Michigan Public Service Commission on behalf of Consumer Energy in regards to the classification of electric transmission and distribution facilities of a service provider.	2003
	Direct report as well as deposition before the State of Michigan Court of Appeals Case No. 359013 on behalf of the City of Ann Arbor relative to industry practices in stormwater rate setting, reasonableness of charges, fund balances, and transfers, as well as the use of tiered rates.	2023
Michigan	Direct and rebuttal testimony in Case No. U-13917 before the Michigan Public Service Commission on behalf of Consumer Energy in regards to electric transmission cost forecasting, rate structures and service types, current wholesale industry trends, and appropriate cost recovery mechanisms for local distribution companies.	2004
	Testimony in File No. 15-5343-AW before the Circuit Court of Lenawee County, Michigan on behalf of Gaslight Village Assisted Living, LLC in regards to the proper level of connection and benefit fees for Adrian Township applicable to the assisted living facility and other customers	2016
	Testimony in File No.: 14-006077-CK before the 26th Circuit Court for the County of Alpena, MI on behalf of Alpena Township as to appropriate water and sewer rates for wholesale service provided by the City of Alpena.	2018 & 2024
Minnesota	Affidavit in Court File No.: 62-CV-18-2356 before the 2 nd District Court for the County of Ramsey, MN on behalf of the City of Saint Paul, Board of Water Commissioners, and Saint Paul Regional Water Services regarding the appropriate application of and methodology for calculating base fees and right of way recovery fees.	2019
United States Virgin Islands	Testimony in Docket No. 554 before the Government of the U.S. Virgin Islands Public Service Commission relative to the establishment of a wastewater user fee on behalf of the Virgin Islands Waste Management Authority. The testimony presented the basis for and methodology employed in calculating the user fee.	2007

City of Bloomington - Utilities Department

Attachment AJB-2 Cost of Service Detailed Schedules

Schedule 1	Allocation Factors
Schedule 2	Test Year Expenses
Schedule 3	Transmission and Distribution Expenses
Schedule 3A	Fixed Asset Summary
Schedule 4	Water Revenue Requirements by Function
Schedule 5	Test Year Revenues
Schedule 6	Water Non-Rate Revenue Allocation
Schedule 7	Functions & Flows
Schedule 8	Units of Service
Schedule 8A	Peaking Factor Development
Schedule 9	Fire Protection Units of Service by Class
Schedule 10	Unitization
Schedule 11	Water Cost of Service
Schedule 12	Water Capital Improvement Allocation
Schedule 13	Transmission and Distribution Allocation



Schedule 1 Allocation Factors

Line	Water Allocation Factors	Supply Allocation	Treatment/Pumping Allocation	Distribution Storage Allocation	Distribution Mains Allocation	Transmission Allocation	Meters Allocation	Services Allocation	Cust. Serv. Allocation	Fire Prot. Allocation	Hydrants Allocation	Billing Allocation	Total Allocation
1	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
2	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
3	Distribution Storage	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
4	Distribution Mains	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
5	Transmission Mains	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
6	Transmission & Distribution Assets	0.0%	0.0%	0.0%	41.1%	58.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%
7	Meters	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
8	Services	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
9	Customer Services	0.0%	0.0%	0.0%	0.0%	0.0%	41.8%	0.0%	11.2%	0.0%	0.0%	46.9%	100.0%
10	Fire Protection	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
11	Hydrants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
12	Billing	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
13	Administrative	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.7%	4.4%	100.0%
14	Fixed Assets	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%	100.0%
15	Power & Chemicals	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
16	5-Yr CIP	0.0%	36.6%	16.2%	1.2%	23.6%	9.3%	0.0%	2.5%	0.0%	0.0%	10.5%	100.0%
17	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Line 6 - Allocation split based on provided City system data of transmission and distribution pipes. See Schedule 13 for additional detail.

Line 9 - Allocation split based on split of Trial balance for Year End 2024 for meters, customer service, and billing.

Line 13 - Allocation split based on the weighted average of all operations and maintenance costs.

Line 14 - Allocation split based on Net Book Value for FY 2024 fixed assets.

Line 15 - Expenses related to power and chemicals directly allocated to supply and base demand.

Line 16 - Allocation split based on 5-Year CIP for FY 2025-2029.

Schedule 2 Test Year Expenses¹

Expense Line Item	Department	FY 2024		FY 2024 Test Year	Adjustment	Water Revenue Requirements
		December 31,2024				
Operations and Maintenance						
Purchased Water	Source of Supply	183,053	\$	-	\$	183,053
Purchased Power	Source of Supply	799,973	\$	-	\$	799,973
Materials and Supplies	Source of Supply	52,737	\$	-	\$	52,737
Salaries and Wages	Treatment	1,139,065	\$	183,460	\$	1,322,525
Employee Pensions and Benefits	Treatment	242,499	\$	46,845	\$	289,344
Purchased Power	Treatment	253,271	\$	-	\$	253,271
Chemicals	Treatment	1,570,069	\$	-	\$	1,570,069
Materials and Supplies	Treatment	286,374	\$	-	\$	286,374
Contractual Services - Testing	Treatment	29,150	\$	-	\$	29,150
Contractual Services - Other	Treatment	70,968	\$	-	\$	70,968
Transportation Expenses	Treatment	39,543	\$	50,000	\$	89,543
Miscellaneous Expenses	Treatment	90,502	\$	-	\$	90,502
Salaries and Wages	Transmission and Distribution	1,229,641	\$	478,165	\$	1,707,806
Employee Pensions and Benefits	Transmission and Distribution	256,728	\$	75,969	\$	332,697
Purchased Power	Transmission and Distribution	541,290	\$	-	\$	541,290
Materials and Supplies	Transmission and Distribution	1,208,457	\$	-	\$	1,208,457
Transportation Expenses	Transmission and Distribution	214,807	\$	42,217	\$	257,024
Miscellaneous Expenses	Transmission and Distribution	82,785	\$	-	\$	82,785
Salaries and Wages	Customer Account	397,600	\$	47,897	\$	445,497
Employee Pensions and Benefits	Customer Account	85,772	\$	16,861	\$	102,633
Materials and Supplies	Customer Account	160,634	\$	-	\$	160,634
Transportation Expenses	Customer Account	19,866	\$	-	\$	19,866
Bad Debt Expense	Customer Account	84,342	\$	(36,517)	\$	47,825
Miscellaneous Expenses	Customer Account	171,210	\$	-	\$	171,210
Salaries and Wages	Administrative and General	1,396,324	\$	393,398	\$	1,789,722
Employee Pensions and Benefits	Administrative and General	262,426	\$	58,443	\$	320,869
Purchased Power	Administrative and General	5,770	\$	-	\$	5,770
Materials and Supplies	Administrative and General	336,095	\$	-	\$	336,095
Contractual Services - Engineering	Administrative and General	1,750	\$	-	\$	1,750
Contractual Services - Accounting	Administrative and General	69,274	\$	206,838	\$	276,112
Contractual Services - Legal	Administrative and General	10,869	\$	8,171	\$	19,040
Contractual Services - Testing	Administrative and General	43,886	\$	62,470	\$	106,356
Contractual Services - Other	Administrative and General	146,865	\$	802,640	\$	949,505
Transportation Expenses	Administrative and General	41,382	\$	-	\$	41,382
Insurance - General Liability	Administrative and General	184,835	\$	-	\$	184,835
Advertising Expense	Administrative and General	188	\$	-	\$	188
Public Water System Fee	Administrative and General	27,342	\$	-	\$	27,342
Miscellaneous Expenses	Administrative and General	(15,756)	\$	267,257	\$	251,501
Total O&M		\$ 11,721,586	\$	11,721,586	\$	2,704,113
Taxes Other Than Income Taxes						
Payment in Lieu of Property Taxes		\$ -	\$ -	\$ 476,886	\$	476,886
Total Taxes Other Than Income Taxes		\$ -	\$ -	\$ 476,886	\$	476,886
Debt Service						
Current Average Annual Debt Service and Lease Payments		\$ 7,123,762	\$ 7,123,762	\$ -	\$	7,123,762
Total Debt		\$ 7,123,762	\$ 7,123,762	\$ -	\$	7,123,762
Capital Improvement Program (CIP)						
Annual Extensions and Replacements		\$ 7,118,867	\$ 7,118,867	\$ -	\$	7,118,867
Total CIP		\$ 7,118,867	\$ 7,118,867	\$ -	\$	7,118,867
Total Revenue Requirements		\$ 25,964,215	\$ 25,964,215	\$ 3,180,999	\$	29,145,214

Sources:

¹ Adjusted Statement of Income from Petitioner's witness Jennifer Z. Wilson's Attachment JZW-1

Schedule 3 Transmission & Distribution Expenses

Line	Expense Line Item	Transmission & Distribution Expenses	% Allocation		\$ Allocation	
			Booster Station	Transmission & Distribution	Booster Station ²	Transmission & Distribution
Transmission & Distribution Expenses						
1	Salaries and Wages	\$ 1,707,806	0.0%	100.0%	\$ -	\$ 1,707,806
2	Employee Pensions and Benefits	\$ 332,697	0.0%	100.0%	\$ -	\$ 332,697
3	Purchased Power ¹	\$ 541,290	100.0%	0.0%	\$ 541,290	\$ -
4	Materials and Supplies	\$ 1,208,457	0.0%	100.0%	\$ -	\$ 1,208,457
5	Transportation Expenses	\$ 257,024	0.0%	100.0%	\$ -	\$ 257,024
6	Miscellaneous Expenses ¹	\$ 82,785	100.0%	0.0%	\$ 82,785	\$ -
7	Total T&D Expense	\$ 4,130,059			\$ 624,075	\$ 3,505,984
Fixed Asset Allocation³						
Distribution Assets		Asset Original Cost	%	Reservoirs	Pumping	Distribution Mains
8	(390) Structures and Improvements	\$ 4,539,916	0.0%	4,539,916		
9	(305.2) Collecting and Impounding Reservoirs	\$ 3,337,988	5.2%		3,337,988	
10	(309.2) Supply Mains	\$ 1,717,757	0.0%		1,717,757	
11	(325) Electrical Pumping Equipment	\$ 5,182,854	3.8%	5,182,854		
12	(339.31) Other Pumping 1	\$ 64,086,769	2.0%			26,373,897
13	(330.5) Distribution Storage	\$ 1,354,807	5.9%			37,712,873
14	(344) Distribution Mains ⁴	\$ 5,099,143	73.5%			
15	(345) Services	\$ 1,836,873	1.6%			1,354,807
16	(346) Meters	\$ 391,113	5.9%			
17	(339.55) Other Distribution Plant 2	\$ 1,060,929	0.0%			5,099,143
18	(348) Hydrants	\$ 54,499	2.1%			1,836,873
19	(339.5) Other Distribution Plant 1	\$ 205,121	0.0%			
20	Total	\$ 87,156,107	100.0%	9,722,770	5,055,744	26,373,897
21	% Allocation			11%	6%	30%
Allocation of Transmission & Distribution Expenses⁵						
Allocation of Transmission & Distribution		Transmission & Distribution Expenses ⁵				
22	System Pumping	\$ 203,375				
23	Hydrants	\$ 73,891				
24	Transmission Mains City	\$ 1,517,056				
25	Transmission Mains Outside City	\$ -				
26	Transmission Mains Common to All	\$ -				
27	Distribution Storage	\$ 391,113				
28	Distribution Mains	\$ 1,060,929				
29	Services	\$ 54,499				
30	Meters	\$ 205,121				
31	Total T&D Expense (Excluding Booster Station)	\$ 3,505,984				

¹ Allocated directly to Booster Station as these costs are associated with treatment/pumping functions within the system.

² Booster station costs that are allocated directly to treatment/pumping on Schedule 4

³ Fixed asset allocation based on original cost of assets from Schedule 3A

⁴ Allocates distribution mains costs between Transmission and Distribution based on inch feet analysis on Schedule 13

⁵ Represents allocation of Transmission & Distribution Expenses only from Line 7 (excluding booster station costs) allocated by respective fixed asset category on Line 21.

Schedule 3A Asset Summary

Line	Assets	Sum of Net Book Value	Allocation Factor	Supply	Treatment/Pumping	Distribution Storage	Distribution Mains	Transmission	Meters	Services	Cust. Serv.	Fire Prot.	Hydrants	Billing
				Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation	Allocation
1	(303.2) Land & Land Rights	\$ 471,328	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2	(303.5) Land & Land Rights	\$ 891,828	Distribution Mains	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	(304.2) Structures and Improvements	\$ 1,821,607	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4	(305.2) Collecting and Impounding Reservoirs	\$ 2,016,112	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5	(309.2) Supply Mains	\$ 35,006	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6	(325) Electrical Pumping Equipment	\$ 477,006	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
7	(330) Land & Land Rights	\$ 56,666	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
8	(330.5) Distribution Storage	\$ 1,903,719	Distribution Storage	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
9	(331) Treatment Plant	\$ 9,098,747	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
10	(332) Treatment Equipment	\$ 21,522,371	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
11	(339.3) Other Pumping Equipment	\$ -	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
12	(339.31) Other Pumping 1	\$ 1,573,318	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
13	(339.5) Other Distribution Plant 1	\$ 51,447	Transmission & Distribution Assets	0.0%	0.0%	0.0%	41.1%	58.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
14	(339.55) Other Distribution Plant 2	\$ 143,343	Transmission & Distribution Assets	0.0%	0.0%	0.0%	41.1%	58.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
15	(344) Distribution Mains	\$ 44,615,720	Transmission & Distribution Assets	0.0%	0.0%	0.0%	41.1%	58.8%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
16	(345) Services	\$ 19,443	Services	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
17	(346) Meters	\$ 2,954,317	Meters	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
18	(348) Hydrants	\$ 341,526	Hydrants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
19	(348.6) Other Tangible Equipment	\$ 10,222	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
20	(389) Land & Land Rights	\$ 17,750	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
21	(390) Structures and Improvements	\$ 3,197,156	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
22	(391) Office Furniture and Equipment	\$ 1,200	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
23	(392) Transportation Equipment	\$ 561,475	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
24	(393) Stores Equipment	\$ -	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
25	(394) Tools, Shop and Garage Equipment	\$ 3,493	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
26	(395) Laboratory Equipment	\$ 81,727	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
27	(396) Power Operated Equipment	\$ 120,646	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
28	(397) Communication Equipment	\$ 15,565	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
29	(398) Miscellaneous Equipment	\$ 357,197	General Plant	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
30	Grand Total	\$ 92,359,935												

Assets	Supply	Treatment/Pumping	Distribution Storage	Distribution Mains	Transmission	Meters	Services	Cust. Serv.	Fire Prot.	Hydrants	Billing	Total
	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
(303.2) Land & Land Rights	\$ 471,328	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 471,328
(303.5) Land & Land Rights	\$ -	\$ -	\$ -	\$ 891,828	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 891,828
(304.2) Structures and Improvements	\$ 1,821,607	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,821,607
(305.2) Collecting and Impounding Reservoirs	\$ 2,016,112	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,016,112
(309.2) Supply Mains	\$ 35,006	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,006
(325) Electrical Pumping Equipment	\$ -	\$ 477,006	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 477,006
(330) Land & Land Rights	\$ -	\$ 56,666	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,666
(330.5) Distribution Storage	\$ -	\$ -	\$ 1,903,719	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,903,719
(331) Treatment Plant	\$ -	\$ 9,098,747	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,098,747
(332) Treatment Equipment	\$ -	\$ 21,522,371	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,522,371
(339.3) Other Pumping Equipment	\$ -	\$ 1,573,318	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,573,318
(339.31) Other Pumping 1	\$ -	\$ -	\$ -	\$ 21,126	\$ 30,275	\$ -	\$ 46	\$ -	\$ -	\$ -	\$ -	\$ 51,447
(339.5) Other Distribution Plant 1	\$ -	\$ -	\$ -	\$ 58,863	\$ 84,353	\$ -	\$ 128	\$ -	\$ -	\$ -	\$ -	\$ 143,343
(339.55) Other Distribution Plant 2	\$ -	\$ -	\$ -	\$ 18,321,101	\$ 26,254,826	\$ -	\$ 39,793	\$ -	\$ -	\$ -	\$ -	\$ 44,615,720
(344) Distribution Mains	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,443	\$ -	\$ -	\$ -	\$ -	\$ 19,443
(345) Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(346) Meters	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,954,317	\$ -	\$ -	\$ -	\$ -	\$ 2,954,317
(348) Hydrants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 341,526
(348.6) Other Tangible Equipment	\$ 505	\$ 3,802	\$ 221	\$ 2,241	\$ 3,063	\$ 343	\$ 7	\$ -	\$ -	\$ 40	\$ -	\$ 10,222
(389) Land & Land Rights	\$ 876	\$ 6,602	\$ 384	\$ 3,892	\$ 5,319	\$ 596	\$ 12	\$ -	\$ -	\$ 69	\$ -	\$ 17,750
(390) Structures and Improvements	\$ 157,837	\$ 1,189,143	\$ 69,170	\$ 700,989	\$ 958,108	\$ 107,342	\$ 2,159	\$ -	\$ -	\$ 12,409	\$ -	\$ 3,197,156
(391) Office Furniture and Equipment	\$ 59	\$ 446	\$ 26	\$ 263	\$ 360	\$ 40	\$ 1	\$ -	\$ -	\$ 5	\$ -	\$ 1,200
(392) Transportation Equipment	\$ 27,719	\$ 208,834	\$ 12,147	\$ 123,106	\$ 168,260	\$ 18,851	\$ 379	\$ -	\$ -	\$ 2,179	\$ -	\$ 561,475
(393) Stores Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(394) Tools, Shop and Garage Equipment	\$ 172	\$ 1299,163764	\$ 76	\$ 766	\$ 1,047	\$ 117	\$ 2	\$ -	\$ -	\$ 14	\$ -	\$ 3,493
(395) Laboratory Equipment	\$ 4,035	\$ 30,397	\$ 1,768	\$ 17,919	\$ 24,491	\$ 2,744	\$ 55	\$ -	\$ -	\$ 317	\$ -	\$ 81,727
(396) Power Operated Equipment	\$ 5,956	\$ 44,873	\$ 2,610	\$ 26,452	\$ 36,155	\$ 4,051	\$ 81	\$ -	\$ -	\$ 468	\$ -	\$ 120,646
(397) Communication Equipment	\$ 768	\$ 5,789	\$ 337	\$ 3,413	\$ 4,664	\$ 523	\$ 11	\$ -	\$ -	\$ 60	\$ -	\$ 15,565
(398) Miscellaneous Equipment	\$ 17,634	\$ 132,855	\$ 7,728	\$ 78,317	\$ 107,043	\$ 11,993	\$ 241	\$ -	\$ -	\$ 1,386	\$ -	\$ 357,197
Total Fixed Assets	\$ 4,559,614	\$ 34,352,148	\$ 1,998,186	\$ 20,250,275	\$ 27,677,963	\$ 3,100,917	\$ 62,358	\$ -	\$ -	\$ 358,473	\$ -	\$ 92,359,935
% Allocation of Fixed Assets	5%	37%	2%	22%	30%	3%	0%	0%	0%	0%	0%	

Schedule 4 Water Revenue Requirements by Function

Line Item	Department	Water ¹ Revenue Requirements	Allocation Factor	Supply Allocation	Treatment /Pumping Allocation	Distribution Allocation	Distribution Mains Allocation	Transmission Allocation	Meters Allocation	Services Allocation	Cust. Serv. Allocation	Fire Prot. Allocation	Hydrants Allocation	Billing Allocation
1	Purchased Water	\$ 183,053	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
2	Purchased Power	\$ 799,973	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3	Materials and Supplies	\$ 52,737	Source of Supply	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
4	Salaries and Wages	\$ 1,322,525	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5	Employee Pensions and Benefits	\$ 289,344	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
6	Purchased Power	\$ 253,271	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
7	Chemicals	\$ 1,570,069	Power & Chemicals	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
8	Materials and Supplies	\$ 286,374	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
9	Contractual Services - Testing	\$ 29,150	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
10	Contractual Services - Other	\$ 70,968	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
11	Transportation Expenses	\$ 89,543	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
12	Miscellaneous Expenses	\$ 90,502	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
13	Salaries and Wages	\$ 82,785	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
14	Employee Pensions and Benefits	\$ 445,497	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
15	Purchased Power	\$ 541,290	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
16	Materials and Supplies	\$ 102,633	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
17	Transportation Expenses	\$ 160,634	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
18	Miscellaneous Expenses	\$ 19,866	N/A	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
19	Salaries and Wages	\$ 47,825	Treatment/Pumping	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
20	Employee Pensions and Benefits	\$ 171,210	Customer Account	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	46.9%
21	Materials and Supplies	\$ 1,789,722	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
22	Transportation Expenses	\$ 320,869	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
23	Bad Debt Expense	\$ 5,770	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
24	Miscellaneous Expenses	\$ 136,095	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
25	Salaries and Wages	\$ 1,750	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
26	Employee Pensions and Benefits	\$ 276,112	Customer Account	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
27	Purchased Power	\$ 19,040	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
28	Materials and Supplies	\$ 106,356	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
29	Contractual Services - Engineering	\$ 949,505	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
30	Contractual Services - Accounting	\$ 41,382	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
31	Contractual Services - Legal	\$ 184,835	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
32	Contractual Services - Testing	\$ 188	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
33	Contractual Services - Other	\$ 27,342	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
34	Transportation Expenses	\$ 251,501	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
35	Insurance - General Liability	\$ -	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
36	Advertising Expense	\$ -	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
37	Public Water System Fee	\$ -	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
38	Miscellaneous Expenses	\$ -	Administrative and General	25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.0%	4.4%
39	System Pumping	\$ 203,375	Transmission and Distribution ²	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
40	Hydrants	\$ 73,891	Hydrants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
41	Transmission Mains City	\$ 1,517,056	Transmission and Distribution ²	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
42	Transmission Mains Outside City	\$ -	Transmission Mains	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
43	Transmission Mains Common to All	\$ -	Transmission Mains	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
44	Distribution Storage	\$ 391,113	Distribution Storage	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
45	Distribution Mains	\$ 1,060,929	Distribution Mains	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
46	Services	\$ 54,499	Services	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
47	Meters	\$ 205,121	Meters	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
48	Total O&M	\$ 14,425,699												
	Taxes Other Than Income Taxes													
49	Payment in Lieu of Property Taxes	\$ 476,886	Fixed Assets	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
50	Total Taxes Other Than Income Taxes	\$ 476,886												
	Debt Service													
51	Current Average Annual Debt Service and Lease Payments	\$ 7,123,762	Fixed Assets	4.9%	37.2%	2.2%	21.9%	30.0%	3.4%	0.1%	0.0%	0.0%	0.4%	0.0%
52	Total Debt	\$ 7,123,762												
	Capital Improvement Program (CIP)													
53	Annual Extensions and Replacements	\$ 7,118,867	5-Yr CIP	0.0%	36.6%	16.2%	1.2%	23.6%	9.3%	0.0%	2.5%	0.0%	0.0%	10.5%
54	Total CIP	\$ 7,118,867												
55	Total Revenue Requirements	\$ 29,145,214												
		\$ -												

Sources:

¹ Adjusted Statement of Income from Petitioner's witness Jennifer Z. Wilson's Exhibit JZW-1.

² Transmission and Distribution expense allocation as developed on Schedule 3

Schedule 4 Water Revenue Requirements by Function

Line Item	Department	Water ¹											
		Revenue Requirements	Supply Costs	Treatment/Pumping Costs	Distribution Storage Costs	Distribution Mains Costs	Transmission Costs	Meters Costs	Services Costs	Cust. Serv. Costs	Fire Prot. Costs	Hydrants Costs	Billing Costs
1	Purchased Water	Source of Supply	\$ 183,053	\$ 183,053	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	Purchased Power	Source of Supply	\$ 799,973	\$ 799,973	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	Materials and Supplies	Source of Supply	\$ 52,737	\$ 52,737	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	Salaries and Wages	Treatment	\$ 1,322,525	\$ -	\$ 1,322,525	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Employee Pensions and Benefits	Treatment	\$ 289,344	\$ -	\$ 289,344	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Purchased Power	Treatment	\$ 253,271	\$ -	\$ 253,271	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Chemicals	Treatment	\$ 1,570,069	\$ 1,570,069	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8	Materials and Supplies	Treatment	\$ 286,374	\$ -	\$ 286,374	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9	Contractual Services - Testing	Treatment	\$ 29,150	\$ -	\$ 29,150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10	Contractual Services - Other	Treatment	\$ 70,968	\$ -	\$ 70,968	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	Transportation Expenses	Treatment	\$ 89,543	\$ -	\$ 89,543	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Miscellaneous Expenses	Treatment	\$ 90,502	\$ -	\$ 90,502	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Salaries and Wages	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Employee Pensions and Benefits	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	Purchased Power	Transmission and Distribution ²	\$ 541,290	\$ -	\$ 541,290	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16	Materials and Supplies	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Transportation Expenses	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	Miscellaneous Expenses	Transmission and Distribution ²	\$ 82,785	\$ -	\$ 82,785	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Salaries and Wages	Customer Account	\$ 445,497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 186,393	\$ -	\$ 50,112	\$ -	\$ 208,992
20	Employee Pensions and Benefits	Customer Account	\$ 102,633	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,941	\$ -	\$ 11,545	\$ -	\$ 48,147
21	Materials and Supplies	Customer Account	\$ 160,634	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 67,208	\$ -	\$ 18,069	\$ -	\$ 75,357
22	Transportation Expenses	Customer Account	\$ 19,866	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,312	\$ -	\$ 2,235	\$ -	\$ 9,320
23	Bad Debt Expense	Customer Account	\$ 47,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,010	\$ -	\$ 5,380	\$ -	\$ 22,436
24	Miscellaneous Expenses	Customer Account	\$ 171,210	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 71,633	\$ -	\$ 19,258	\$ -	\$ 80,318
25	Salaries and Wages	Administrative and General	\$ 1,789,722	\$ 461,059	\$ 576,648	\$ 69,201	\$ 187,714	\$ 268,418	\$ 106,446	\$ 9,643	\$ 18,861	\$ -	\$ 13,074
26	Employee Pensions and Benefits	Administrative and General	\$ 320,869	\$ 82,661	\$ 103,384	\$ 12,407	\$ 33,654	\$ 48,123	\$ 19,084	\$ 1,729	\$ 3,381	\$ -	\$ 2,344
27	Purchased Power	Administrative and General	\$ 5,770	\$ 1,486	\$ 1,859	\$ 223	\$ 605	\$ 865	\$ 343	\$ 31	\$ 61	\$ -	\$ 42
28	Materials and Supplies	Administrative and General	\$ 336,095	\$ 86,583	\$ 108,290	\$ 12,995	\$ 35,251	\$ 50,407	\$ 19,990	\$ 1,811	\$ 3,542	\$ -	\$ 2,455
29	Contractual Services - Engineering	Administrative and General	\$ 1,750	\$ 451	\$ 564	\$ 68	\$ 184	\$ 262	\$ 104	\$ 9	\$ 18	\$ -	\$ 77
30	Contractual Services - Accounting	Administrative and General	\$ 276,112	\$ 71,130	\$ 88,963	\$ 10,676	\$ 28,960	\$ 41,411	\$ 16,422	\$ 1,488	\$ 2,910	\$ -	\$ 2,017
31	Contractual Services - Legal	Administrative and General	\$ 19,040	\$ 4,905	\$ 6,135	\$ 736	\$ 1,997	\$ 2,856	\$ 1,132	\$ 103	\$ 201	\$ -	\$ 139
32	Contractual Services - Testing	Administrative and General	\$ 106,356	\$ 27,399	\$ 34,268	\$ 4,112	\$ 11,155	\$ 15,951	\$ 6,326	\$ 573	\$ 1,121	\$ -	\$ 777
33	Contractual Services - Other	Administrative and General	\$ 949,505	\$ 244,607	\$ 305,931	\$ 36,713	\$ 99,588	\$ 142,404	\$ 56,473	\$ 5,116	\$ 10,006	\$ -	\$ 6,936
34	Transportation Expenses	Administrative and General	\$ 41,382	\$ 10,661	\$ 13,333	\$ 1,600	\$ 4,340	\$ 6,206	\$ 2,461	\$ 223	\$ 436	\$ -	\$ 302
35	Insurance - General Liability	Administrative and General	\$ 184,835	\$ 47,616	\$ 59,554	\$ 7,147	\$ 19,386	\$ 27,721	\$ 10,993	\$ 996	\$ 1,948	\$ -	\$ 1,350
36	Advertising Expense	Administrative and General	\$ 188	\$ 48	\$ 61	\$ 7	\$ 20	\$ 28	\$ 11	\$ 1	\$ 2	\$ -	\$ 8
37	Public Water System Fee	Administrative and General	\$ 27,342	\$ 7,044	\$ 8,810	\$ 1,057	\$ 2,868	\$ 4,101	\$ 1,626	\$ 147	\$ 288	\$ -	\$ 200
38	Miscellaneous Expenses	Administrative and General	\$ 251,501	\$ 64,790	\$ 81,034	\$ 9,724	\$ 26,378	\$ 37,719	\$ 14,958	\$ 1,355	\$ 2,650	\$ -	\$ 1,837
39	System Pumping	Transmission and Distribution ²	\$ 203,375	\$ -	\$ 203,375	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
40	Hydrants	Transmission and Distribution ²	\$ 73,891	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 73,891
41	Transmission Mains City	Transmission and Distribution ²	\$ 1,517,056	\$ -	\$ -	\$ -	\$ -	\$ 1,517,056	\$ -	\$ -	\$ -	\$ -	\$ -
42	Transmission Mains Outside City	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
43	Transmission Mains Common to All	Transmission and Distribution ²	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
44	Distribution Storage	Transmission and Distribution ²	\$ 391,113	\$ -	\$ -	\$ 391,113	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45	Distribution Mains	Transmission and Distribution ²	\$ 1,060,929	\$ -	\$ -	\$ -	\$ 1,060,929	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46	Services	Transmission and Distribution ²	\$ 54,499	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,499	\$ -	\$ -	\$ -
47	Meters	Transmission and Distribution ²	\$ 205,121	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 205,121	\$ -	\$ -	\$ -	\$ -
48	Total O&M		\$ 14,425,699	\$ 3,716,271	\$ 4,647,958	\$ 557,780	\$ 1,513,030	\$ 2,163,529	\$ 857,988	\$ 77,723	\$ 152,023	\$ -	\$ 105,379
	Taxes Other Than Income Taxes			25.8%	32.2%	3.9%	10.5%	15.0%	5.9%	0.5%	1.1%	0.0%	0.7%
49	Payment in Lieu of Property Taxes		\$ 476,886	\$ 23,543	\$ 177,372	\$ 10,317	\$ 104,559	\$ 142,911	\$ 16,011	\$ 322	\$ -	\$ 1,851	\$ -
50	Total Taxes Other Than Income Taxes		\$ 476,886	\$ 23,543	\$ 177,372	\$ 10,317	\$ 104,559	\$ 142,911	\$ 16,011	\$ 322	\$ -	\$ 1,851	\$ -
	Debt Service												
51	Current Average Annual Debt Service and Lease Payments		\$ 7,123,762	\$ 351,685	\$ 2,649,596	\$ 154,121	\$ 1,561,913	\$ 2,134,813	\$ 239,175	\$ 4,810	\$ -	\$ 27,649	\$ -
52	Total Debt		\$ 7,123,762	\$ 351,685	\$ 2,649,596		\$ 1,561,913	\$ 2,134,813	\$ 239,175	\$ 4,810	\$ -	\$ 27,649	\$ -
	Capital Improvement Program (CIP)												
53	Annual Extensions and Replacements		\$ 7,118,867	\$ -	\$ 2,608,825	\$ 1,154,205	\$ 84,743	\$ 1,682,156	\$ 664,801	\$ -	\$ 178,731	\$ -	\$ 745,406
54	Total CIP		\$ 7,118,867	\$ -	\$ 2,608,825		\$ 84,743	\$ 1,682,156	\$ 664,801	\$ -	\$ 178,731	\$ -	\$ 745,406
55	Total Revenue Requirements		\$ 29,145,214	\$ 4,091,500	\$ 10,083,751	\$ 1,876,423	\$ 3,264,245	\$ 6,123,409	\$ 1,777,975	\$ 82,855	\$ 330,754	\$ -	\$ 134,879
				14%	35%	6%	11%	21%	6%	0.3%	1%	0%	0.5%

Sources:

¹ Adjusted Statement of Income from Petitioner's witness Jennifer Z. Wilson's Exhibit JZW-1.

² Transmission and Distribution expense allocation as developed on Schedule 3

Schedule 5 Test Year Revenues

Line	Rate Revenue Line Item	Type	FY 2024 December 31,2024	FY 2024		Adjustment	Revenues	
				Test Year				
1	Rate Revenue ¹							
1	Water Rate Revenue	Water Rate Revenue	\$ 21,513,892	\$ 21,513,892	\$ -	\$ -	\$ 21,513,892	
2	Total Rate Revenue		\$ 21,513,892	\$ 21,513,892	\$ -	\$ -	\$ 21,513,892	
Offsetting Revenues		Type	FY 2024	FY 2024 Test Year	Adjustment	Revenues		
Non-Rate Revenue Line Item								
	Other Operating Revenue							
3	Forfeited Discounts	Other Operating Revenue	\$ 34,030	\$ 34,030	\$ -	\$ -	\$ 34,030	
4	Miscellaneous Operating Revenues	Other Operating Revenue	\$ 804,793	\$ 804,793	\$ -	\$ -	\$ 804,793	
5	Other Non-Operating Income	Other Non-Operating Revenue			\$ -	\$ -	\$ -	
6	Total Other Operating Revenue		\$ 838,823	\$ 838,823	\$ -	\$ -	\$ 838,823	
	Connection Fees							
7	Water Connection Charges		\$ 238,823	\$ 238,823	\$ -	\$ -	\$ 238,823	
8	Total Connection Fees		\$ 238,823	\$ 238,823	\$ -	\$ -	\$ 238,823	
9	Total Non-Rate Revenue		\$ 1,077,646	\$ 1,077,646	\$ -	\$ -	\$ 1,077,646	

¹ Includes revenue for residential, commercial, industrial, public authorities, multifamily, Public and Private Fire Protection, Irrigation and wholesale per Adjusted Statement of Income from Petitioner's witness Jennifer Z. Wilson's Attachment JZW-1

Schedule 6 Water Non-Rate Revenue Allocation

Non-Rate Revenue Line Item	Type	Revenue for COSA	Water						Fire Protection - Public			Fire Protection - Private			General			IU Master			Fire Protection - Public		
			General Residential	Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	General Residential	Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	General	Service	Wholesale	IU Master	Irrigation	Fire Protection - Public	Fire Protection - Private
Line Other Operating Revenue																							
1 Forfeited Discounts	Other Operating Revenue	\$ 34,030	WCOSA Weighted	44.2%	18.8%	18.5%	5.3%	7.4%	4.7%	1.0%	\$ 15,054	\$ 6,407	\$ 6,313	\$ 1,788	\$ 2,527	\$ 1,610	\$ 330						
2 Miscellaneous Operating Revenues	Other Operating Revenue	\$ 804,793	WCOSA Weighted	44.2%	18.8%	18.5%	5.3%	7.4%	4.7%	1.0%	\$ 356,029	\$ 151,533	\$ 149,288	\$ 42,295	\$ 59,771	\$ 38,080	\$ 7,797						
3 Other Non-Operating Income	Other Non-Operating Revenue	\$ -	WCOSA Weighted	44.2%	18.8%	18.5%	5.3%	7.4%	4.7%	1.0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -						
4 Water Connection Charges		\$ 238,823	WCOSA Weighted	44.2%	18.8%	18.5%	5.3%	7.4%	4.7%	1.0%	\$ 105,652	\$ 44,968	\$ 44,301	\$ 12,551	\$ 17,737	\$ 11,300	\$ 2,314						
5 Total Other Operating Revenue		\$ 1,077,646									\$ 476,734	\$ 202,908	\$ 199,902	\$ 56,635	\$ 80,035	\$ 50,990	\$ 10,440						

Schedule 7 Functions & Flows

Line	Function	Base Capacity -	Extra Capacity -	Extra Capacity -	Fire Protection	Customers
		Avg Day	Max Day	Max Hour		
1	Supply	100%				
2	Treatment/Pumping ¹	76%	24%			
3	Distribution Mains ²	59%	19%	22%		
4	Distribution Storage ³	59%		41%		
5	Transmission ¹	76%	24%			
6	Meters ⁴					100%
7	Services ⁴					100%
8	Cust. Serv. ⁴					100%
9	Hydrants ⁵				100%	
10	Distribution Facilities ⁴					100%
11	Billing ⁴					100%
12	Water System Demands (MGD) ⁶ (Line 15)	Average Day 14.59	Max Day 19.30	Max Hour 24.60		
13	Production Numbers	Average Day	Max Day	Max Hour		
14	Calendar Year	(MGD)	(MGD)	(MGD)		
15	2022	14.23	18.45	21.90		
	2023	14.10	18.64	22.80		
	2024	14.59	19.30	24.60		
16	Coincident (System) Peaking Factors ⁷	MD Factor 1.32	MH Factor 1.69			

¹ Treatment/Pumping and Transmission costs are assigned the average and max day functions based on ratio of the max day to average day system demands (Line 12).

² Distribution Mains costs are allocated to average, max day, and max hour demands. The average component is a ratio of the average day demands to the max hour demands. The max day component is the difference between the max day and average day demands divided by the max hour demands. The remainder is assigned to the max hour.

³ Distribution Storage costs are allocated to average and max hour demands based on the ratio of max hour to average day demands (Line

⁴ Customer related costs are assigned directly to the customer cost component.

⁵ Hydrant related costs allocated directly to fire protection cost component.

⁶ Represent Water System Demands for 2024 from CBU Monroe production data.

⁷ Coincident (System) Peaking Factors based on 2024. Max Day (MGD) divided by Avg Day (MGD). Peak Hour (MGD) divided by Average Day MGD.

Schedule 8 Units of Service

Line	Base and Extra Capacity Demands by Customer Class	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Total
1	Test Year Annual Use (kgal)	1,793,639	888,865	1,151,808	309,399	140,885	4,284,596
2	Average Daily Use (MGD)	4.91	2.44	3.16	0.85	0.39	11.74
3	Max Day Demand Factor Per AMI Data (Schedule 8A)	1.31	1.43	1.33	1.46	5.29	
4	Non-Coincident Max Day Demand (MGD) (Line 2 * Line 3)	6.46	3.48	4.19	1.24	2.04	17.41
5	Non-Coincident Max Day Demand Factor (Line 4 / Line 2)	1.48					
6	Coincident Max Day Demand Factor (Schedule 7, Line 16)	1.32					
7	System MD Diversity* (Line 5 / Line 6)	1.12					
	<i>*AWWA M1: Range for System MD Diversity For Many Utility Systems is 1.10 - 1.40</i>						
8	Max Hour Demand Factor Per AMI Data (Schedule 8A)	1.93	1.98	1.98	2.07	12.66	20.62
9	Max Hour Demand (MGD) (Line 8 * Line 2)	9.50	4.83	6.25	1.75	4.89	27.22
10	Non-Coincident Max Hour Demand Factor (Line 9 / Line 2)	2.32					
11	Coincident Max Hour Demand Factor (Schedule 7, Line 16)	1.69					
12	System MH Diversity* (Line 10/ Line 11)	1.37					
	<i>*AWWA M1: Range for System MH Diversity For Many Utility Systems is 1.10 - 1.40</i>						

Schedule 8 Units of Service

Units of Service by Customer Class

		Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public ¹	Fire Protection - Private ¹	Total
Base Units									
13	Annual Use (kgal) (Line 1)	1,793,639	888,865	1,151,808	309,399	140,885			4,284,596
Max Day Units									
14	Max Day Peaking Factor (Line 4 / Line 2)	1.31	1.43	1.33	1.46	5.29			
15	Total Max Day Capacity (kgal) (Line 13 * Line 14)	2,357,913	1,271,298	1,527,713	452,337	744,702			6,353,963
16	Extra Capacity (kgal) (Line 15 - Line 13)	564,274	382,433	375,905	142,938	603,817	357,491	69,559	2,496,417
Max Hour Units									
17	Max Hour Peaking Factor (Line 8)	1.93	1.98	1.98	2.07	12.66			
18	Total Max Hour Capacity (kgal) (Line 13 * Line 17)	3,466,342	1,763,347	2,282,065	639,654	1,783,204			9,934,612
19	Extra Capacity (kgal) (Line 18 - Line 15)	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	6,208,649
Customer Units									
20	Equivalent Meters ²	42,462	8,842	900	983	1,487			54,673
21	Number of Customers ³	23,985	2,222	29	16	523			646 27,420
22	Number of Bills, Annually ⁴	287,820	26,660	348	192	6,271			646 321,937
23	Meter Size Equivalents ⁵	10,060,070	1,761,605	156,458	134,101	313,312			12,425,545

¹ Calculation of public and private fire units of service shown in Schedule 9

² Represents equivalent meters for average connections from 2024 billing data provided by City

³ Represents average number of customers from 2024 billing data provided by City

⁴ Represents annual number of bills from 2024 billing data provided by City

⁵ Represents meter costs for average number of accounts from 2024 billing data

Schedule 8A Peaking Factor Development

Max Day

Line	Customer Class	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Total System
1	Max Day (kgal) ¹	6,351	3,406	4,027	1,264	2,053	17,102
2	Annual Avg Day (kgal) ¹	4,832	2,381	3,036	865	388	11,502
3	Max Day Non-Coincident Demand Factor (Line 1 / Line 2)	1.31	1.43	1.33	1.46	5.29	1.49
4	Date of Max Day	9/15/2024	8/29/2024	6/20/2024	9/18/2024	9/11/2024	8/28/2025
5	Non-Coincident May Day Demand Factor (Line 1 / Line 2)	1.49					
6	Coincident Max Day Demand Factor (Schedule 7, Line 16)	1.32					
7	System MD Diversity* (Line 6 / Line 5)	1.12					

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

Max Hour

	Customer Class	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Total System
8	Max Hour (kgal) ¹	388	192	186	74	141	981
9	Annual Avg Hour (kgal) ¹	201	97	94	36	11	438
10	Max Hour Non-Coincident Demand Factor (Line 9 / Line 10)	1.93	1.98	1.98	2.07	12.66	2.24
11	Date of Max Hour	9/15/24 8:00 PM	8/29/24 3:00 PM	6/20/24 10:00 AM	9/18/24 2:00 PM	9/11/24 2:00 AM	8/27/25 8:00 PM
12	Non-Coincident May Hour Demand Factor (Line 8 / Line 9)	2.24					
13	Coincident Max Hour Demand Factor (Schedule 7, Line 17)	1.69					
14	System MH Diversity* (Line 12 / Line 13)	1.33					

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

¹ Daily and hourly data from Automated Metering Infrastructure Data (AMI) provided by the City of Bloomington for FY 2024.

Schedule 9 Fire Protection Units of Service by Fire Protection Class (Public or Private)

Line	Number of Services ³	Demand Factor ²	Equivalent Service Unit (ESU)	% Allocation
1	Number of Hydrants - Public (Inside City) ¹	2,214	111.31	246,442
2	Number of Hydrants - Public (Outside City) ¹	1,023	111.31	113,871
3	Total Public Hydrants	3,237		360,313
Number of Hydrants - Private				
4	4" and Under	233	38.32	8,941
5	6"	319	111.31	35,480
6	8"	84	237.21	19,846
7	10"	4	426.58	1,706
8	12"	6	689.04	4,134
9	Total Private Hydrants	646		70,108
10	Total Hydrants	3,883		430,422

Fire Units of Service

Fire Type	Max Fires/Day ⁴	Duration (min) ⁵	Gallons/Minute (gpm) ⁵	Max Day Demand (MGD)	Max Hour Demand (MGD)
11 Residential	3	120	1,500	0.5	2.2
12 Total Fire (MGD)				0.5	2.2
13 Extra Capacity					1.6
Fire Type					
14 Non-Residential	1	180	3,500	0.6	5.0
15 Total Fire (MGD)				0.6	5.0
16 Extra Capacity					4.4
Fire Type					
17 Structure Fire	4			1.2	7.2
18 Extra-Capacity Max Day (MGD)				1.2	7.2
19 Extra Capacity Max Hour (MGD)					6.0

¹ Assumes 6" service line

² AWWA uses Hazen-Williams equation for flow through pressure conduits as diameter raised to power of 2.63 (AWWA M1 7th Edition, Page 163)

³ Number of services provided by Bloomington. Includes active hydrants and split between inside and outside public hydrants.

⁴ Maximum fires/day based on 2024 max fire incidents in a single day for structure fires for Bloomington Fire Department.

⁵ Duration and flow estimates are based on assumptions derived from industry guidance and illustrative examples provided in the AWWA M1 Manual and are consistent with practices observed in other systems.

Schedule 10 Unitization

Line	Average Day	Total Cost ¹	Allocation Factor ²	Average Day Allocation ³	Average Day Units ⁴	Unit Cost ⁵
1	Supply	\$ 4,091,500	100.0%	\$ 4,091,500	4,284,596	\$ 0.95
2	Treatment/Pumping	\$ 10,083,751	75.6%	\$ 7,622,027	4,284,596	\$ 1.78
3	Distribution Storage	\$ 1,876,423	59.3%	\$ 1,112,579	4,284,596	\$ 0.26
4	Distribution Mains ⁸	\$ 3,264,245	59.3%	\$ 1,935,454	2,823,389	\$ 0.69
5	Transmission	\$ 6,123,409	75.6%	\$ 4,628,515	4,284,596	\$ 1.08
6	Meters	\$ 1,777,975	0.0%	\$ -	4,284,596	\$ -
7	Services	\$ 82,855	0.0%	\$ -	4,284,596	\$ -
8	Cust. Serv.	\$ 330,754	0.0%	\$ -	4,284,596	\$ -
9	Fire Prot.	\$ -	0.0%	\$ -	4,284,596	\$ -
10	Hydrants	\$ 134,879	0.0%	\$ -	4,284,596	\$ -
11	Distribution Facilities	\$ -	0.0%	\$ -	4,284,596	\$ -
12	Billing	\$ 1,379,425	0.0%	\$ -	4,284,596	\$ -
13	Total	\$ 29,145,215		\$ 19,390,075		\$ 4.76
Max Day	Total Cost ¹	Allocation Factor ²	Max Day Allocation ³	Max Day Units ⁴	Unit Cost ⁵	
14	Supply	\$ 4,091,500	0.0%	\$ -	2,496,417	\$ -
15	Treatment/Pumping	\$ 10,083,751	24.4%	\$ 2,461,724	2,496,417	\$ 0.99
16	Distribution Storage	\$ 1,876,423	0.0%	\$ -	2,496,417	\$ -
17	Distribution Mains ⁸	\$ 3,264,245	19.2%	\$ 625,103	1,977,574	\$ 0.32
18	Transmission	\$ 6,123,409	24.4%	\$ 1,494,894	2,496,417	\$ 0.60
19	Meters	\$ 1,777,975	0.0%	\$ -	2,496,417	\$ -
20	Services	\$ 82,855	0.0%	\$ -	2,496,417	\$ -
21	Cust. Serv.	\$ 330,754	0.0%	\$ -	2,496,417	\$ -
22	Fire Prot.	\$ -	0.0%	\$ -	2,496,417	\$ -
23	Hydrants	\$ 134,879	0.0%	\$ -	2,496,417	\$ -
24	Distribution Facilities	\$ -	0.0%	\$ -	2,496,417	\$ -
25	Billing	\$ 1,379,425	0.0%	\$ -	2,496,417	\$ -
26	Total	\$ 29,145,215		\$ 4,581,722		\$ 1.90
Max Hour	Total Cost ¹	Allocation Factor ²	Max Hour Allocation ³	Max Hour Units ⁴	Unit Cost ⁵	
27	Supply	\$ 4,091,500	0.0%	\$ -	6,208,649	\$ -
28	Treatment/Pumping	\$ 10,083,751	0.0%	\$ -	6,208,649	\$ -
29	Distribution Storage	\$ 1,876,423	40.7%	\$ 763,844	6,208,649	\$ 0.12
30	Distribution Mains ⁸	\$ 3,264,245	21.6%	\$ 703,687	5,266,980	\$ 0.13
31	Transmission	\$ 6,123,409	0.0%	\$ -	6,208,649	\$ -
32	Meters	\$ 1,777,975	0.0%	\$ -	6,208,649	\$ -
33	Services	\$ 82,855	0.0%	\$ -	6,208,649	\$ -
34	Cust. Serv.	\$ 330,754	0.0%	\$ -	6,208,649	\$ -
35	Fire Prot.	\$ -	0.0%	\$ -	6,208,649	\$ -
36	Hydrants	\$ 134,879	0.0%	\$ -	6,208,649	\$ -
37	Distribution Facilities	\$ -	0.0%	\$ -	6,208,649	\$ -
38	Billing	\$ 1,379,425	0.0%	\$ -	6,208,649	\$ -
39	Total	\$ 29,145,215		\$ 1,467,531		\$ 0.26
Customer	Total Cost ¹	Allocation Factor ²	Customer Allocation ³	Customer Units ⁶	Unit Cost ⁵	
40	Supply	\$ 4,091,500	0.0%	\$ -	321,937	\$ -
41	Treatment/Pumping	\$ 10,083,751	0.0%	\$ -	321,937	\$ -
42	Distribution Storage	\$ 1,876,423	0.0%	\$ -	321,937	\$ -
43	Distribution Mains	\$ 3,264,245	0.0%	\$ -	321,937	\$ -
44	Transmission	\$ 6,123,409	0.0%	\$ -	321,937	\$ -
45	Meters	\$ 1,777,975	100.0%	\$ 1,777,975	12,425,545	\$ 0.14
46	Services	\$ 82,855	100.0%	\$ 82,855	54,673	\$ 1.52
47	Cust. Serv.	\$ 330,754	100.0%	\$ 330,754	27,420	\$ 12.06
48	Fire Prot.	\$ -	0.0%	\$ -	321,937	\$ -
49	Hydrants	\$ 134,879	0.0%	\$ -	321,937	\$ -
50	Distribution Facilities	\$ -	100.0%	\$ -	54,673	\$ -
51	Billing	\$ 1,379,425	100.0%	\$ 1,379,425	27,420	\$ 50.31
52	Total	\$ 29,145,215		\$ 3,571,008		\$ 64.03

Schedule 10 Unitization

Fire Protection	Total Cost ¹	Allocation Factor ²	Fire Protection ³	Fire Protection Units ⁷	Unit Cost ⁵
53 Supply	\$ 4,091,500	0.0%	\$ -	1	\$ -
54 Treatment/Pumping	\$ 10,083,751	0.0%	\$ -	1	\$ -
55 Distribution Storage	\$ 1,876,423	0.0%	\$ -	1	\$ -
56 Distribution Mains ⁸	\$ 3,264,245	0.0%	\$ -	1	\$ -
57 Transmission	\$ 6,123,409	0.0%	\$ -	1	\$ -
58 Meters	\$ 1,777,975	0.0%	\$ -	1	\$ -
59 Services	\$ 82,855	0.0%	\$ -	1	\$ -
60 Cust. Serv.	\$ 330,754	0.0%	\$ -	1	\$ -
61 Fire Prot.	\$ -	0.0%	\$ -	1	\$ -
62 Hydrants	\$ 134,879	100.0%	\$ 134,879	1	\$ 134,878.66
63 Distribution Facilities	\$ -	0.0%	\$ -	1	\$ -
64 Billing	\$ 1,379,425	0.0%	\$ -	1	\$ -
65 Total	\$ 29,145,215		\$ 134,879		\$ 134,878.66

¹ Represents functional cost breakdown of revenue requirements as shown in Schedule 4

² Allocation factor of each function to cost components as calculated in Schedule 7

³ Allocated cost is the multiplication of Total Cost for each function and its respective allocation factor

⁴ Represents total units of service (kgal) for each cost component as shown in Schedule 8

⁵ Unit Cost calculated by taking Cost Allocation divided by respective units

⁶ Customer units vary between annual bills, equivalent meters, number of customers and meter size equivalents as shown in Schedule 8

⁷ Represents direct hydrant related units

⁸ Excludes units of service for IU Master Metered & Wholesale customers

Schedule 11 Water Cost of Service

Line	Units by Cost Component	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	
Base - Annual Use									
1	Supply	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
2	Treatment	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
3	Reservoir	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
4	Distribution	1,793,639	888,865	-	-	140,885	-	-	
5	Transmission	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
6	Meters	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
7	Services	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
8	Cust. Serv.	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
9	Fire Prot.	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
10	Hydrants	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
11	Distribution Facilities	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
12	Billing	1,793,639	888,865	1,151,808	309,399	140,885	-	-	
13	Extra - Max Day								
14	Supply	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
15	Treatment	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
16	Reservoir	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
17	Distribution	564,274	382,433	-	-	603,817	357,491	69,559	
18	Transmission	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
19	Meters	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
20	Services	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
21	Cust. Serv.	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
22	Fire Prot.	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
23	Hydrants	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
24	Distribution Facilities	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
25	Billing	564,274	382,433	375,905	142,938	603,817	357,491	69,559	
26	Extra - Max Hour								
27	Supply	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
28	Treatment	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
29	Reservoir	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
30	Distribution	1,108,429	492,049	-	-	1,038,502	2,199,944	428,056	
31	Transmission	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
32	Meters	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
33	Services	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
34	Cust. Serv.	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
35	Fire Prot.	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
36	Hydrants	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
37	Distribution Facilities	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
38	Billing	1,108,429	492,049	754,352	187,317	1,038,502	2,199,944	428,056	
39	Fire Protection Customer								
40	Supply	287,820	26,660	348	192	6,271	-	646	
41	Treatment	287,820	26,660	348	192	6,271	-	646	
42	Reservoir	287,820	26,660	348	192	6,271	-	646	
43	Distribution	287,820	26,660	348	192	6,271	-	646	
44	Transmission	287,820	26,660	348	192	6,271	-	646	
45	Meters	10,060,070	1,761,605	156,458	134,101	313,312	-	646	
46	Services	42,462	8,842	900	983	1,487	-	-	
47	Cust. Serv.	23,985	2,222	29	16	523	-	646	
48	Fire Prot.	287,820	26,660	348	192	6,271	-	646	
49	Hydrants	287,820	26,660	348	192	6,271	-	646	
50	Distribution Facilities	42,462	8,842	900	983	1,487	-	-	
51	Billing	23,985	2,222	29	16	523	-	646	

Schedule 11 Water Cost of Service

Unit Costs by Cost Component

	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private
54 Base	\$ 4.76	\$ 4.76	\$ 4.07	\$ 4.07	\$ 4.76	\$ 4.76	\$ 4.76
55 <i>Supply</i>	\$ 0.95	\$ 0.95	\$ 0.95	\$ 0.95	\$ 0.95	\$ 0.95	\$ 0.95
56 <i>Treatment</i>	\$ 1.78	\$ 1.78	\$ 1.78	\$ 1.78	\$ 1.78	\$ 1.78	\$ 1.78
57 <i>Reservoir</i>	\$ 0.26	\$ 0.26	\$ 0.26	\$ 0.26	\$ 0.26	\$ 0.26	\$ 0.26
58 <i>Distribution</i>	\$ 0.69	\$ 0.69	-	-	\$ 0.69	\$ 0.69	\$ 0.69
59 <i>Transmission</i>	\$ 1.08	\$ 1.08	\$ 1.08	\$ 1.08	\$ 1.08	\$ 1.08	\$ 1.08
60 <i>Meters</i>	-	-	-	-	-	-	-
61 <i>Services</i>	-	-	-	-	-	-	-
62 <i>Cust. Serv.</i>	-	-	-	-	-	-	-
63 <i>Fire Prot.</i>	-	-	-	-	-	-	-
64 <i>Hydrants</i>	-	-	-	-	-	-	-
65 <i>Distribution Facilities</i>	-	-	-	-	-	-	-
66 <i>Billing</i>	-	-	-	-	-	-	-
67 Max Day	1.90	1.90	1.58	1.58	1.90	1.90	1.90
68 <i>Supply</i>	-	-	-	-	-	-	-
69 <i>Treatment</i>	\$ 0.99	\$ 0.99	\$ 0.99	\$ 0.99	\$ 0.99	\$ 0.99	\$ 0.99
70 <i>Reservoir</i>	-	-	-	-	-	-	-
71 <i>Distribution</i>	\$ 0.32	\$ 0.32	-	-	\$ 0.32	\$ 0.32	\$ 0.32
72 <i>Transmission</i>	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60	\$ 0.60
73 <i>Meters</i>	-	-	-	-	-	-	-
74 <i>Services</i>	-	-	-	-	-	-	-
75 <i>Cust. Serv.</i>	-	-	-	-	-	-	-
76 <i>Fire Prot.</i>	-	-	-	-	-	-	-
77 <i>Hydrants</i>	-	-	-	-	-	-	-
78 <i>Distribution Facilities</i>	-	-	-	-	-	-	-
79 <i>Billing</i>	-	-	-	-	-	-	-
80 Max Hour	0.26	0.26	0.12	0.12	0.26	0.26	0.26
81 <i>Supply</i>	-	-	-	-	-	-	-
82 <i>Treatment</i>	-	-	-	-	-	-	-
83 <i>Reservoir</i>	\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.12	\$ 0.12
84 <i>Distribution</i>	\$ 0.13	\$ 0.13	-	-	\$ 0.13	\$ 0.13	\$ 0.13
85 <i>Transmission</i>	-	-	-	-	-	-	-
86 <i>Meters</i>	-	-	-	-	-	-	-
87 <i>Services</i>	-	-	-	-	-	-	-
88 <i>Cust. Serv.</i>	-	-	-	-	-	-	-
89 <i>Fire Prot.</i>	-	-	-	-	-	-	-
90 <i>Hydrants</i>	-	-	-	-	-	-	-
91 <i>Distribution Facilities</i>	-	-	-	-	-	-	-
92 <i>Billing</i>	-	-	-	-	-	-	-
93 Fire Protection	134,878.66	134,878.66	134,878.66	134,878.66	134,878.66	134,878.66	134,878.66
94 Customer	64.03	64.03	64.03	64.03	64.03	64.03	64.03
95 <i>Supply</i>	-	-	-	-	-	-	-
96 <i>Treatment</i>	-	-	-	-	-	-	-
97 <i>Reservoir</i>	-	-	-	-	-	-	-
98 <i>Distribution</i>	-	-	-	-	-	-	-
99 <i>Transmission</i>	-	-	-	-	-	-	-
100 <i>Meters</i>	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14	\$ 0.14
101 <i>Services</i>	\$ 1.52	\$ 1.52	\$ 1.52	\$ 1.52	\$ 1.52	\$ 1.52	\$ 1.52
102 <i>Cust. Serv.</i>	\$ 12.06	\$ 12.06	\$ 12.06	\$ 12.06	\$ 12.06	\$ 12.06	\$ 12.06
103 <i>Fire Prot.</i>	-	-	-	-	-	-	-
104 <i>Hydrants</i>	-	-	-	-	-	-	-
105 <i>Distribution Facilities</i>	-	-	-	-	-	-	-
106 <i>Billing</i>	\$ 50.31	\$ 50.31	\$ 50.31	\$ 50.31	\$ 50.31	\$ 50.31	\$ 50.31

Schedule 11 Water Cost of Service

Unit Costs Allocated to Classes

		Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	Total
107	Base	\$ 8,536,494	\$ 4,230,389	\$ 4,692,244	\$ 1,260,432	\$ 670,516	\$ -	\$ -	\$ 19,390,075
108	Max Day	\$ 1,072,693	\$ 727,011	\$ 595,780	\$ 226,545	\$ 1,147,865	\$ 679,596	\$ 132,233	\$ 4,581,722
109	Max Hour	\$ 284,459	\$ 126,276	\$ 92,807	\$ 23,045	\$ 266,513	\$ 564,577	\$ 109,853	\$ 1,467,531
110	Fire Protection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 134,879	\$ -	\$ 134,879
111	Customer	\$ 2,999,786	\$ 404,032	\$ 25,560	\$ 21,676	\$ 79,678	\$ -	\$ 40,275	\$ 3,571,008
112	Total Cost Allocation (Gross)	\$ 12,893,432	\$ 5,487,708	\$ 5,406,391	\$ 1,531,698	\$ 2,164,573	\$ 1,379,051	\$ 282,362	\$ 29,145,215
113	Less: Other Operating Revenues ¹	\$ (476,735)	\$ (202,908)	\$ (199,902)	\$ (56,635)	\$ (80,035)	\$ (50,990)	\$ (10,440)	\$ (1,077,646)
114	FY24 Total Cost Allocation (Net)	\$ 12,416,696	\$ 5,284,799	\$ 5,206,490	\$ 1,475,064	\$ 2,084,538	\$ 1,328,061	\$ 271,921	\$ 28,067,569
115	Existing Revenue ²	\$ 10,441,284	\$ 3,960,772	\$ 3,536,817	\$ 970,628	\$ 770,403	\$ 1,604,501	\$ 229,488	\$ 21,513,892
116	Over/Under Recovery	\$ 1,975,413	\$ 1,324,028	\$ 1,669,673	\$ 504,436	\$ 1,314,135	\$ (276,440)	\$ 42,433	\$ 6,553,677
117	% Increase Needed	18.9%	33.4%	47.2%	52.0%	170.6%	-17.2%	18.5%	30.5%
118	FY24 Total Cost Allocation (Net) after Capped Increases ³	\$ 12,508,851	\$ 5,622,974	\$ 5,206,490	\$ 1,506,489	\$ 1,622,784	\$ 1,328,061	\$ 271,921	\$ 28,067,569
119	Over/Under Recovery after Capped Increases	\$ 2,067,567	\$ 1,662,203	\$ 1,669,673	\$ 535,861	\$ 852,381	\$ (276,440)	\$ 42,433	\$ 6,553,677
120	% Increase Needed after Capped Increases	19.8%	42.0%	47.2%	55.2%	110.6%	-17.2%	18.5%	30.5%

¹ Other operating revenues are a weighted allocation of gross cost allocation (Line 112) and shown on Schedule 6

² Adjustable operating revenues are presented in Petitioner Jennifer Z Wilson's exhibit JZW-1 and allocated in proportion to the calculated revenue figures prepared by Stantec for FY 2024.

³ Irrigation customer class is capped, with the cap set at four times the overall increase of 30.5%. Any costs that exceed this cap for the Irrigation class are reallocated proportionally to the Residential, General Service, and IU Master Metered customer classes, based on their respective percentage of total irrigation usage.

Schedule 12 Capital Improvement Allocation

Project Description	5-Year CIP ¹ (FY 25-FY 29)	Allocation Factor	Supply Allocation	Treatment/Pumping Allocation	Distribution Storage Allocation	Distribution Mains Allocation	Transmission Allocation	Meters Allocation	Services Allocation	Cust. Serv. Allocation	Fire Prot. Allocation	Hydrants Allocation	Billing Allocation	Total Allocation
Monroe WTP - Intake Projects														
Intake Bypass Pumping Improvements	\$ 524,000	Treatment/Pumping		100%										100%
														0%
														0%
Monroe WTP - Rapid Mix, Splitter Box, Parshall Flume Projects														100%
Repairs to Splitter box, Rapid mix, and Parshall Flume Concrete	250,000	Treatment/Pumping		100%										0%
														100%
														0%
Monroe WTP - Flocculation / Sedimentation Projects														100%
Sedimentation Basin 1 Rehabilitation, Valve Actuator (2 sludge), and Horizontal Floculator System Rebuilds - Basin 1	4,041,000	Treatment/Pumping		100%										100%
Sedimentation Basin 2 Rehabilitation, Valve Actuator (2 intake, 2 sludge), and Horizontal Floculator System Rebuilds - Basin 2	4,041,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Chemical Projects														0%
Chemical Feed Line Replacement	4,000,000	Treatment/Pumping		100%										100%
Alum Equipment Issues	331,000	Treatment/Pumping		100%										100%
Chemical Building Improvements	1,680,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Piping and Valve Projects														0%
Install Permanent Air Monitoring in New Pipe Gallery	50,000	Treatment/Pumping		100%										100%
Repair Finished Water Header Leaks	100,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Tank Projects														0%
Finished Water Reservoir Inspection	18,000	Treatment/Pumping		100%										100%
Transfer Pump Station Wellwell Inspection	36,000	Treatment/Pumping		100%										100%
Transfer Pump Station Wellwell Rehabilitation	73,000	Treatment/Pumping		100%										100%
Finished Water Reservoir Repairs	450,000	Treatment/Pumping		100%										100%
Backwash Tank Rehabilitation	45,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Pump Projects														0%
High Service Pumps														0%
Rebuild HSP 3	286,000	Treatment/Pumping		100%										100%
Rebuild HSP 4	221,000	Treatment/Pumping		100%										100%
Add VFD to HSP #3 & #4	1,000,000	Treatment/Pumping		100%										100%
High Service Pump Area HVAC	278,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Pump Projects (Continued)														0%
Transfer Pumps														0%
Rebuild TPS 1	\$ 216,000	Treatment/Pumping		100%										100%
Rebuild TPS 5	215,000	Treatment/Pumping		100%										100%
Add VFD to Transfer Pumps	1,000,000	Treatment/Pumping		100%										100%
Low Service Pumps														0%
Rebuild LSP 1	413,000	Treatment/Pumping		100%										100%
Rebuild LSP 2	413,000	Treatment/Pumping		100%										100%
VFD for LSP 2	578,000	Treatment/Pumping		100%										0%
														0%
Monroe WTP - Residuals Projects														0%
Backwash Holding Basin Pumps and Railing System	142,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Electrical / Controls Projects														0%
Electrical Upgrades														0%
Part 1	2,728,000	Treatment/Pumping		100%										100%
Part 2	4,856,000	Treatment/Pumping		100%										100%
SCADA Upgrades	1,500,000	Treatment/Pumping		100%										100%
														0%
Monroe WTP - Misc. Projects														0%
Maintenance Plans - Phase 2 Asset Management	300,000	Treatment/Pumping		100%										100%
Miscellaneous Repair and Replacement	1,000,000	Treatment/Pumping		100%										100%
														0%
Water Distribution System Projects														0%
West Booster Station Rehabilitation	2,250,000	Distribution Storage												100%
South Central Booster Station Rehabilitation	5,250,000	Distribution Storage												100%
Booster Stations - Emergency generator upgrades	250,000	Distribution Storage												100%
Storage Tank Inspections	50,000	Distribution Storage												100%
														0%
Water Distribution System Projects (Continued)														0%
South & West Storage Tank Engineering & Rehabilitation	\$ 2,750,000	Distribution Storage		100%										100%
SE SW Redundant Storage Tank Engineering & Rehabilitation	2,750,000	Distribution Storage		100%										100%
Value Relocation at 11th Street & Dunn	500,000	Distribution Mains												100%
Gentry Booster Station Improvements	120,000	Distribution Storage												100%
Dogwood Booster Station Rehabilitation	50,000	Distribution Storage												100%
Improve pressure along Handy Rd - add smaller mains	500,000	Distribution Mains												100%
														0%
Watermain Projects														0%
Annual Replacement Projects - Bond Funded	3,000,000	Transmission												100%
Annual Replacement Projects - Cash Funded	12,100,000	Transmission												100%
Watermain Relocation for Transportation Projects	2,500,000	Transmission												100%
Fire Hydrant Maint and Capacity testing	950,000	Transmission												100%
Valve Replacement Program	1,300,000	Transmission												100%
														0%
Shared Project with all Bloomington Utilities														0%
WT New Service Center - Soft Costs	1,750,000	Customer Services												100%
WT New Service Center and Maintenance Buildings	17,000,000	Customer Services												100%
Total Capital Improvement Plan	84,005,000													
Total CIP Allocation %	100%													

¹ 5-Year capital improvement plan provided by Petitioner's Witness Jennifer Crowe.

Schedule 12 Capital Improvement Allocation

Project Description	5-Year CIP ¹ (FY 23-FY 27)	Supply Costs	Treatment/Pumping Costs	Distribution Storage Costs	Distribution Mains Costs	Transmission Costs	Meters Costs	Services Costs	Cust. Serv. Costs	Fire Prot. Costs	Hydrants Costs	Distribution Facilities Costs	Billing Costs	Total Costs
Monroe WTP - Intake Projects														
Intake Bypass Pumping Improvements	\$ 524,000	\$ -	\$ 524,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 524,000
Monroe WTP - Rapid Mix, Splitter Box, Parshall Flume Projects														
Repairs to Splitter box, Rapid mix, and Parshall Flume Concrete	250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
Monroe WTP - Flocculation / Sedimentation Projects														
Sedimentation Basin 1 Rehabilitation, Valve Actuator (2 intake, 2 sludge), and Horizontal Flocculator System Rebuilds - Basin 1	4,041,000	\$ -	\$ 4,041,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,041,000
Sedimentation Basin 2 Rehabilitation, Valve Actuator (2 intake, 2 sludge), and Horizontal Flocculator System Rebuilds - Basin 2	4,041,000	\$ -	\$ 4,041,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,041,000
Monroe WTP - Chemical Projects														
Chemical Feed Line Replacement	4,000,000	\$ -	\$ 4,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,000,000
Alum Equipment Issues	331,000	\$ -	\$ 331,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 331,000
Chemical Building Improvements	1,680,000	\$ -	\$ 1,680,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,680,000
Monroe WTP - Piping and Valve Projects														
Install Permanent Air Monitoring in New Pipe Gallery	50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Repair Finished Water Header Leaks	100,000	\$ -	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,000
Monroe WTP - Tank Projects														
Finished Water Reservoir Inspection	18,000	\$ -	\$ 18,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,000
Transfer Pump Station Wellwall Inspection	36,000	\$ -	\$ 36,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,000
Transfer Pump Station Wellwall Rehabilitation	73,000	\$ -	\$ 73,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 73,000
Finished Water Reservoir Repairs	450,000	\$ -	\$ 450,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 450,000
Backwash Tank Rehabilitation	45,000	\$ -	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,000
Monroe WTP - Pump Projects														
High Service Pumps														
Rebuild HSP 3	286,000	\$ -	\$ 286,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 286,000
Rebuild HSP 4	221,000	\$ -	\$ 221,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 221,000
Add VFD to HSP #3 & #4	1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
High Service Pump Area HVAC	278,000	\$ -	\$ 278,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 278,000
Monroe WTP - Pump Projects (Continued)														
Transfer Pumps														
Rebuild TPS 1	\$ 216,000	\$ -	\$ 216,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 216,000
Rebuild TPS 5	215,000	\$ -	\$ 215,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 215,000
Add VFD to Transfer Pumps	1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
Low Service Pumps														
Rebuild LSP 1	413,000	\$ -	\$ 413,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 413,000
Rebuild LSP 2	413,000	\$ -	\$ 413,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 413,000
VFD for LSP 2	578,000	\$ -	\$ 578,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 578,000
Monroe WTP - Residuals Projects														
Backwash Holding Basin Pumps and Railing System	142,000	\$ -	\$ 142,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 142,000
Monroe WTP - Electrical / Controls Projects														
Electrical Upgrades														
Part 1	2,728,000	\$ -	\$ 2,728,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,728,000
Part 2	4,856,000	\$ -	\$ 4,856,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,856,000
SCADA Upgrades	1,500,000	\$ -	\$ 1,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,500,000
Monroe WTP - Misc. Projects														
Maintenance Plans - Phase 2 Asset Management	300,000	\$ -	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 300,000
Miscellaneous Repair and Replacement	1,000,000	\$ -	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
Water Distribution System Projects														
West Booster Station Rehabilitation	2,250,000	\$ -	\$ 2,250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,250,000
South Central Booster Station Rehabilitation	5,400,000	\$ -	\$ 5,400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,400,000
Booster Stations - Emergency generator upgrades	250,000	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000
Storage Tank Inspections	50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Water Distribution System Projects (Continued)														
South & West Storage Tank Engineering & Rehabilitation	\$ 2,750,000	\$ -	\$ 2,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,750,000
SE SW Redundant Storage Tank Engineering & Rehabilitation	2,750,000	\$ -	\$ 2,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,750,000
Valve Relocation at 11th Street & Dunn	500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
Gentry Booster Station Upgrades	120,000	\$ -	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 120,000
Dogwood Booster Station Rehabilitation	50,000	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000
Improve pressure along Handy Rd - add smaller mains	500,000	\$ -	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 500,000
Watermain Projects														
Annual Replacement Projects - Bond Funded	3,000,000	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,000,000
Annual Replacement Projects - Cash Funded	12,100,000	\$ -	\$ 12,100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,100,000
Watermain Relocation for Transportation Projects	2,500,000	\$ -	\$ 2,500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,500,000
Fire Hydrant Maint and Capacity testing	950,000	\$ -	\$ 950,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 950,000
Watermain Replacement Program	1,300,000	\$ -	\$ 1,300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,300,000
Shared Project with all Bloomington Utilities														
WT New Service Center - Soft Costs	1,750,000	\$ -	\$ 1,750,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,750,000
WT New Service Center and Maintenance Buildings	17,000,000	\$ -	\$ 17,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,000,000
Total Capital Improvement Plan	84,005,000	\$ 0.0%	\$ 30,785,000	\$ 13,620,000	\$ 1,000,000	\$ 19,850,000	\$ 7,844,871	\$ 9.3%	\$ 0.0%	\$ 2,109,086	\$ 0.0%	\$ 0.0%	\$ 0.0%	\$ 8,796,044
Total CIP Allocation %			36.6%	16.2%	1.2%	23.6%	9.3%	0.0%	2.5%	0.0%	0.0%	0.0%	10.5%	100.0%

¹ 5-Year capital improvement plan provided by Petitioner's Witness Jennifer Crowe.

Schedule 13 Transmission and Distribution Allocation

Line	Pipe Size (inch) ¹	Classification of Type	Linear Feet		Inch Foot	
			Inside System	Outside System	Inside System	Outside System
1	0.5	Service Drops			-	-
2	0.75	Service Drops	445	325	334	244
3	1	Service Drops	7887	5162	7,887	5,162
4	1.25	Service Drops	2	0	3	-
5	1.5	Service Drops	4426	128	6,639	192
6	2.5	Distribution			-	-
7	2	Distribution	49334	22171	98,668	44,342
8	3	Distribution	392	1497	1,176	4,491
9	4	Distribution	65768	33238	263,072	132,952
10	6	Distribution	594742	217199	3,568,452	1,303,194
11	8	Distribution	308470	159519	2,467,760	1,276,152
12	10	Distribution	5345	3890	53,450	38,900
13	10	Transmission	7639	5330	76,390	53,300
14	12	Distribution	9976	3977	119,712	47,724
15	12	Transmission	273218	184025	3,278,616	2,208,300
16	14	Transmission	6274	0	87,836	-
17	16	Transmission	33301	24838	532,816	397,408
18	18	Transmission	24810	4	446,580	72
19	20	Transmission	57353	30211	1,147,060	604,220
20	24	Transmission	64785	19850	1,554,840	476,400
21	30	Transmission	0	46	-	1,380
22	36	Transmission	11621	60822	418,356	2,189,592
23	42	Transmission			-	-
24	48	Transmission	0	544	-	26,112
25	54	Transmission	0	0	-	-
26	TOTAL		1,525,788	772,776	14,129,646	8,810,137

Classification of Linear Feet

	Inside City	Outside City	System
27	Service Drops	12,760	5,615
28	Distribution	1,034,027	441,491
29	Transmission	479,001	325,670
30	Total	1,525,788	772,776

Classification of Inch-Foot

	Inside City	Outside City	System
31	Service Drops	14,862	5,598
32	Distribution	6,572,290	2,847,755
33	Transmission	7,542,494	5,956,784
34	Total	14,129,646	8,810,137

Determination of Minimum System - %

	Inside City	Outside City
35	Distribution System - Inch Foot	6,572,290
36	Distribution System - Linear Feet	1,034,027

Percent of System - Transmission

	Inch Feet	Percent of Total
37	Distribution	9,440,505
38	Transmission	13,499,278
39	Total	22,939,783

¹ Pipe size allocation between transmission and distribution for 10" & 12" mains was provided by the City of Bloomington and determined using GIS data and system evaluation to identify mains system use

City of Bloomington - Utilities Department

Attachment AJB-3 Schedules of Rates & Charges

Schedule 1	Water Customer and Fixed Charge
Schedule 2	Water Unit Rates
Schedule 3	Fire Protection Rates
Schedule 4	Rate Schedule and Projected Revenues
Schedule 5	Customer Bill Impacts



Schedule 1 Water Customer and Fixed Charge

Cost Components	Cost ¹	Recovery %	Fixed Cost Recovered	Scaling
Meters	\$ 1,777,975	100%	\$ 1,777,975	Yes
Services	\$ 82,855	100%	\$ 82,855	Yes
Cust. Services	\$ 330,754	100%	\$ 330,754	No
Billing	\$ 1,379,425	100%	\$ 1,379,425	No
	\$ 3,571,008		\$ 3,571,008	

Meter Size	Meter Count ²	Total Annual Bills	ERUs	Current Scaling ³	Non-Scaled ⁴		Scaled Cost ⁵		Proposed	Current	\$ Change	% Change
					\$ 1,710,179	\$ 1,860,830	\$ 1,710,179	\$ 1,860,830				
5/8"	6,131	73,570	6,131	1.00	\$ 5.32	\$ 2.84	\$ 8.16	\$ 6.50	1.66	25.5%		
3/4"	15,926	191,106	23,888	1.50	\$ 5.32	\$ 4.25	\$ 9.58	\$ 7.93	1.65	20.8%		
1"	3,437	41,241	8,592	2.50	\$ 5.32	\$ 7.09	\$ 12.41	\$ 10.68	1.73	16.2%		
1 1/2"	462	5,784	2,410	5.00	\$ 5.32	\$ 14.18	\$ 19.50	\$ 22.12	(2.62)	-11.8%		
2"	525	6,303	4,202	8.00	\$ 5.32	\$ 22.69	\$ 28.01	\$ 29.70	(1.69)	-5.7%		
3"	91	1,097	1,371	15.00	\$ 5.32	\$ 42.54	\$ 47.87	\$ 61.06	(13.19)	-21.6%		
4"	80	964	2,008	25.00	\$ 5.32	\$ 70.91	\$ 76.23	\$ 100.40	(24.17)	-24.1%		
6"	76	911	3,796	50.00	\$ 5.32	\$ 141.81	\$ 147.14	\$ 198.78	(51.64)	-26.0%		
8"	21	255	1,700	80.00	\$ 5.32	\$ 226.90	\$ 232.23	\$ 297.17	(64.94)	-21.9%		
10"	5	60	575	115.00	\$ 5.32	\$ 326.17	\$ 331.50	\$ 395.53	(64.03)	-16.2%		
Total	26,774	321,291	54,673									

Revenue by Class

Meter Size	Residential			General Service			Wholesale			IU Master Metered			Irrigation							
	Total Bills	Non-Scaled Revenue	Scaled Revenue	Total Revenue	Total Bills	Non-Scaled Revenue	Scaled Revenue	Total Revenue	Total Bills	Non-Scaled Revenue	Scaled Revenue	Total Revenue	Total Bills	Non-Scaled Revenue	Scaled Revenue	Total Revenue				
5/8"	71,415	\$ 380,130	\$ 202,553	\$ 582,683	2,113	\$ 11,247	\$ 5,993	\$ 17,240	-	0	0	\$ -	-	0	0	\$ -				
3/4"	175,298	\$ 933,082	\$ 745,792	\$ 1,678,874	12,223	\$ 65,061	\$ 52,002	\$ 117,063	-	0	0	\$ -	-	0	0	\$ -				
1"	33,042	\$ 175,877	\$ 234,291	\$ 410,168	6,490	\$ 34,545	\$ 46,019	\$ 80,564	-	0	0	\$ -	-	0	0	\$ -				
1 1/2"	2,896	\$ 15,415	\$ 41,069	\$ 56,484	2,275	\$ 12,109	\$ 32,263	\$ 44,372	12	64	\$ 170	\$ 234	-	0	\$ -	601	\$ 3,199	\$ 8,523	\$ 11,722	
2"	3,814	\$ 20,301	\$ 86,541	\$ 105,842	2,239	\$ 11,918	\$ 50,803	\$ 62,721	60	319	\$ 1,361	\$ 1,681	12	64	\$ 272	\$ 336	178	\$ 947	\$ 4,039	\$ 4,986
3"	329	\$ 1,751	\$ 13,997	\$ 15,748	684	\$ 3,641	\$ 29,100	\$ 32,741	-	0	0	\$ -	-	0	0	\$ -	84	\$ 447	\$ 3,574	\$ 4,021
4"	436	\$ 2,321	\$ 30,915	\$ 33,236	288	\$ 1,533	\$ 20,421	\$ 21,954	156	830	\$ 11,062	\$ 11,892	24	128	\$ 1,702	\$ 1,830	60	\$ 319	\$ 4,254	\$ 4,574
6"	515	\$ 2,741	\$ 73,034	\$ 75,776	228	\$ 1,214	\$ 32,334	\$ 33,547	108	575	\$ 15,316	\$ 15,891	60	319	\$ 8,509	\$ 8,828	-	0	\$ 0	\$ -
8"	75	\$ 399	\$ 17,018	\$ 17,417	72	\$ 383	\$ 16,337	\$ 16,720	12	64	\$ 2,723	\$ 2,787	84	447	\$ 19,060	\$ 19,507	12	64	\$ 2,723	\$ 2,787
10"	0	0	0	\$ -	48	\$ 255	\$ 15,656	\$ 15,812	-	0	0	\$ -	12	64	\$ 3,914	\$ 3,978	-	0	\$ 0	\$ -
Totals	287,820	\$ 1,532,018	\$ 1,445,211	\$ 2,977,229	26,660	\$ 141,907	\$ 300,928	\$ 442,835	348	\$ 1,852	\$ 30,632	\$ 32,484	192	\$ 1,022	\$ 33,457	\$ 34,479	6,271	\$ 33,379	\$ 50,602	\$ 83,982

¹ Cost for customer function/components shown in Schedule 10

² Based on test year 2024 billing data and assumes no growth consistent with Crowe documents

³ Scaling is applied in a manner consistent with established practices from prior rate case and incorporates certain recognized AWWA standards for meter scaling

⁴ Non-Scaled charge calculated by taking customer services and billing cost divided by total number of annual bills

⁵ Scaled charge calculated by taking meter and services costs divided by total ERUs

Schedule 2 Water Unit Rates

Line		Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	Total
1	Net Cost to Serve (Schedule 11, Line 18)	\$ 12,416,696	\$ 5,284,799	\$ 5,206,490	\$ 1,475,064	\$ 2,084,538	\$ 1,328,061	\$ 271,921	\$ 28,067,569
2	Fixed Cost Recovery (Schedule 13)	\$ (2,977,229)	\$ (442,835)	\$ (32,484)	\$ (34,479)	\$ (83,982)	\$ (1,328,061)	\$ (271,921)	\$ (5,170,990)
3	Volumetric Recovery (Line 1 + Line 2)	\$ 9,439,468	\$ 4,841,965	\$ 5,174,006	\$ 1,440,585	\$ 2,000,556	\$ -	\$ -	\$ 22,896,579
4	Billable Units (kgal) ¹	1,793,639	888,865	1,151,808	309,399	140,885			\$ 4,284,596
5	Unit Rate Calculation per kgal (Line 3 / Line 4)	\$ 5.26	\$ 5.45	\$ 4.49	\$ 4.66	\$ 14.20			\$ 5.34
6	Current Rate	\$ 4.38	\$ 3.98	\$ 3.03	\$ 2.99	\$ 4.92			
7	% Change	20.1%	36.9%	48.2%	55.9%	188.6%			
8	\$ Change	\$ 0.88	\$ 1.47	\$ 1.46	\$ 1.67	\$ 9.28			
	Cost of Service Revenue	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	Total
9	Fixed Revenue (Line 2)	\$ 2,977,229	\$ 442,835	\$ 32,484	\$ 34,479	\$ 83,982	\$ 1,328,061	\$ 271,921	\$ 5,170,990
10	Variable Revenue (Line 3)	\$ 9,439,468	\$ 4,841,965	\$ 5,174,006	\$ 1,440,585	\$ 2,000,556	\$ -	\$ -	\$ 22,896,579
11	Total Revenue (Line 2 + Line 3)	\$ 12,416,696	\$ 5,284,799	\$ 5,206,490	\$ 1,475,064	\$ 2,084,538	\$ 1,328,061	\$ 271,921	\$ 28,067,569
12	Capped/Adj Unit Rate (Line 13/ Line 4)	\$ 5.31	\$ 5.83	\$ 4.49	\$ 4.76	\$ 10.92			
13	Capped/ Adj Volumetric Revenue ²	\$ 9,531,622	\$ 5,180,139	\$ 5,174,006	\$ 1,472,010	\$ 1,538,802	\$ -	\$ -	\$ 22,896,579
14	Deficit/Adj (Line 13 - Line 3)	\$ 92,154	\$ 338,175	\$ -	\$ 31,425	\$ (461,754)	\$ -	\$ -	
15	\$ Change	\$ 0.93	\$ 1.85	\$ 1.46	\$ 1.77	\$ 6.00			
16	% Change	21.3%	46.4%	48.3%	59.1%	122.0%			
	Cost of Service Revenue (With Capped Adjustment)	Residential	General Service	Wholesale	IU Master Metered	Irrigation	Fire Protection - Public	Fire Protection - Private	Total
17	Fixed Revenue	\$ 2,977,229	\$ 442,835	\$ 32,484	\$ 34,479	\$ 83,982	\$ 1,328,061	\$ 271,921	\$ 5,170,990
18	Variable Revenue	\$ 9,531,622	\$ 5,180,139	\$ 5,174,006	\$ 1,472,010	\$ 1,538,802	\$ -	\$ -	\$ 22,896,579
19	Total Revenue	\$ 12,508,851	\$ 5,622,974	\$ 5,206,490	\$ 1,506,489	\$ 1,622,784	\$ 1,328,061	\$ 271,921	\$ 28,067,569

¹ Billable units based on Test Year 2024 Billed Consumption Data per Schedule 8

² Allocation of 4x capped irrigation revenue based on share of irrigation usage for 2024 from billing records

Schedule 3 Fire Protection Cost Recovery & Rates

Line	Fire Protection	Cost	% Allocation
1	Public Fire ¹	\$ 1,328,061	83.0%
2	Private Fire ²	\$ 271,921	17.0%
3	Total Fire Protection	\$ 1,599,982	100.0%
	Public Fire to Inside & Outside City	Cost	Units of Service ⁴
4	Direct Hydrant Allocation ³	\$ 134,879	3,237
5	Public Fire Allocation - Inch-Ft	\$ 1,193,182	9,420,045
6	Total Public Fire Protection	\$ 1,328,061	9,423,282
	Private Fire Unit Costs	Cost	Units of Service
7	Private Fire	\$ 230,675	70,108
8	Billing	\$ 41,247	7,749
9	Total Public Fire Protection	\$ 271,921	77,857
	Allocation to Inside & Outside City	Number of Hydrants ⁵	Hydrant Charge (1)
10	Inside City	2,214	\$ 92,253
11	Outside City	1,023	\$ 42,626
12	Total	3,237	\$ 134,879
			In-Ft of Mains ⁶
			\$ 6,572,290
			\$ 832,474
			\$ 924,726
			70%
			\$ 2,847,755
			\$ 360,708
			\$ 403,335
			30%
			\$ 1,193,182
			\$ 1,328,061
			100.0%

¹ Cost for public fire cost component of revenue requirements shown in Schedule 11

² Cost for private fire cost component of revenue requirements shown in Schedule 11

³ Costs for direct public fire protection from Schedule 11, units of service are based on number of hydrants line 12

⁴ Units of service for public fire allocation based on inch feet analysis on Schedule 13 and Line 12

⁵ Number of hydrants from Schedule 9

⁶ Inch feet of mains from Schedule 13

Schedule 3 Fire Protection Cost Recovery & Rates

Public Fire Protection (Inside)

Meter Size	Meter Count (Inside City)	Total Annual Bills (Inside)	ERUs	Current Scaling
5/8	4,892	58,701	4,892	1.00
3/4	10,875	130,500	16,313	1.50
1	2,842	34,101	7,104	2.50
1.5	421	5,046	2,103	5.00
2	449	5,392	3,595	8.00
3	73	880	1,100	15.00
4	53	639	1,331	25.00
6	51	610	2,542	50.00
8	9	109	727	80.00
10	2	24	230	115.00
12	0	0	-	
Total	19,667	236,002	39,935	

Public Fire Cost Inside ⁷

\$	924,726	Current Rates	\$ Change	% Change
\$	1.93	\$ 2.20	\$ (0.27)	-12.3%
\$	2.90	\$ 3.28	\$ (0.39)	-11.7%
\$	4.83	\$ 5.48	\$ (0.66)	-12.0%
\$	9.65	\$ 10.95	\$ (1.30)	-11.9%
\$	15.44	\$ 17.52	\$ (2.08)	-11.9%
\$	28.95	\$ 38.34	\$ (9.39)	-24.5%
\$	48.25	\$ 65.70	\$ (17.45)	-26.6%
\$	96.50	\$ 136.93	\$ (40.43)	-29.5%
\$	154.40	\$ 197.17	\$ (42.77)	-21.7%
\$	221.95	\$ 317.64	\$ (95.69)	-30.1%

Public Fire Protection (Outside)

Meter Size	Meter Count (Outside City)	Total Annual Bills (Outside)	ERUs	Current Scaling
5/8	1,239	14,869	1,239	1.00
3/4	5,051	60,606	7,576	1.50
1	591	7,092	1,478	2.50
1.5	60	714	298	5.00
2	63	755	503	8.00
3	16	193	241	15.00
4	12	145	302	25.00
6	11	133	554	50.00
8	4	50	333	80.00
10	2	24	230	115.00
12	0	0	-	
Total	7,048	84,581	12,754	

Public Fire Cost Outside ⁷

\$	403,335	Current Rates	\$ Change	% Change
\$	2.64	\$ 3.67	\$ (1.03)	-28.1%
\$	3.96	\$ 5.52	\$ (1.56)	-28.3%
\$	6.60	\$ 9.21	\$ (2.61)	-28.3%
\$	13.20	\$ 18.38	\$ (5.18)	-28.2%
\$	21.12	\$ 29.44	\$ (8.32)	-28.3%
\$	39.60	\$ 64.40	\$ (24.80)	-38.5%
\$	66.00	\$ 110.34	\$ (44.34)	-40.2%
\$	132.00	\$ 229.90	\$ (97.90)	-42.6%
\$	211.20	\$ 331.00	\$ (119.80)	-36.2%
\$	303.60	\$ 533.40	\$ (229.80)	-43.1%

⁷ Public Fire Charge for 5/8" calculated based on public fire cost divided by ERU's on a monthly basis. Remaining meter size charges are based on 5/8" meter charge and scaling factors

Schedule 3 Fire Protection Cost Recovery & Rates

Private Fire Protection

Meter Size (Inch)	Number of Services	Equivalents	Annual Cost	Monthly rate	Billing Component	Total Private Fire Monthly	Current Rate	\$ Change	% Change
4	233	8,941	29,419	\$10.51	\$5.32	\$	15.83	11.04	\$ 4.79 43.4%
6	319	35,480	116,739	\$30.52	\$5.32	\$	35.84	30.69	\$ 5.15 16.8%
8	84	19,846	65,299	\$65.04	\$5.32	\$	70.36	62.89	\$ 7.47 11.9%
10	4	1,706	5,614	\$116.96	\$5.32	\$	122.29	110.14	\$ 12.15 11.0%
12	6	4,134	13,603	\$188.93	\$5.32	\$	194.25	173.66	\$ 20.59 11.9%
		70,108							

Fire Protection Revenue by Class

Meter Size	Public Fire Protection (In)	Public Fire Protection (Out)	Private Fire Protection	Total Fire Protection
Meter Size	Revenue	Revenue	Revenue	Revenue
5/8	\$ 113,293	\$ 39,254		152,547
3/4	\$ 377,798	\$ 240,000		617,797
1	\$ 164,537	\$ 46,807		211,345
1.5	\$ 48,694	\$ 9,425		58,119
2	\$ 83,252	\$ 15,946		99,198
3	\$ 25,476	\$ 7,643		33,119
4	\$ 30,832	\$ 9,570	\$ 44,323	84,724
6	\$ 58,865	\$ 17,556	\$ 137,099	213,520
8	\$ 16,830	\$ 10,560	\$ 70,643	98,033
10	\$ 5,327	\$ 7,286	\$ 5,870	18,483
12	\$ -	\$ -	\$ 13,986	13,986
Total	\$ 924,903	\$ 404,047	\$ 271,921	\$ 1,600,871

Schedule 4 Rate Schedule and Projected Revenue

Customer Class	Current Rates		Rates & Charges			Cost of Service	Projected Revenues	% Change
	Monthly Service Charge	As of 1/1/2024	Cost of Service	% Change	\$ Change			
5/8"	\$ 6.50	\$ 8.16	25.5%	\$ 1.66	\$ 600,266	\$ 478,205	25.5%	
3/4"	\$ 7.93	\$ 9.58	20.8%	\$ 1.65	\$ 1,830,271	\$ 1,515,471	20.8%	
1"	\$ 10.68	\$ 12.41	16.2%	\$ 1.73	\$ 511,947	\$ 439,941	16.4%	
1 1/2"	\$ 22.12	\$ 19.50	-11.8%	\$ (2.62)	\$ 112,813	\$ 127,677	-11.6%	
2"	\$ 29.70	\$ 28.01	-5.7%	\$ (1.69)	\$ 176,567	\$ 185,061	-4.6%	
3"	\$ 61.06	\$ 47.87	-21.6%	\$ (13.19)	\$ 52,510	\$ 65,517	-19.9%	
4"	\$ 100.40	\$ 76.23	-24.1%	\$ (24.17)	\$ 73,486	\$ 96,786	-24.1%	
6"	\$ 198.78	\$ 147.14	-26.0%	\$ (51.64)	\$ 134,042	\$ 176,318	-24.0%	
8"	\$ 297.17	\$ 232.23	-21.9%	\$ (64.94)	\$ 59,217	\$ 75,778	-21.9%	
10"	\$ 395.53	\$ 331.50	-16.2%	\$ (64.03)	\$ 19,890	\$ 23,732	-16.2%	
Monthly Usage Charge (per 1,000 gal)								
Residential	\$ 4.38	\$ 5.31	21.3%	\$ 0.93	\$ 9,531,622	\$ 7,856,139	21.3%	
General Service	\$ 3.98	\$ 5.83	46.4%	\$ 1.85	\$ 5,180,139	\$ 3,503,005	47.9%	
Indiana University - Master Metered	\$ 2.99	\$ 4.76	59.1%	\$ 1.77	\$ 1,472,010	\$ 925,103	59.1%	
Irrigation	\$ 4.92	\$ 10.92	122.0%	\$ 6.00	\$ 1,538,802	\$ 693,154	122.0%	
Contract Sales for Resale	\$ 3.03	\$ 4.49	48.3%	\$ 1.46	\$ 5,174,006	\$ 3,489,978	48.3%	
Public Fire Protection by Meter Size, Charged Monthly:								
<i>Inside City</i>								
5/8"	\$ 2.20	\$ 1.93	-12.3%	\$ (0.27)	\$ 113,292.93	\$ 129,142.20	-12.3%	
3/4"	\$ 3.28	\$ 2.90	-11.7%	\$ (0.39)	\$ 377,797.50	\$ 428,040.00	-11.7%	
1"	\$ 5.48	\$ 4.83	-12.0%	\$ (0.66)	\$ 164,537.33	\$ 186,873.48	-12.0%	
1 1/2"	\$ 10.95	\$ 9.65	-11.9%	\$ (1.30)	\$ 48,693.90	\$ 55,253.70	-11.9%	
2"	\$ 17.52	\$ 15.44	-11.9%	\$ (2.08)	\$ 83,252.48	\$ 94,467.84	-11.9%	
3"	\$ 38.34	\$ 28.95	-24.5%	\$ (9.39)	\$ 25,476.00	\$ 33,739.20	-24.5%	
4"	\$ 65.70	\$ 48.25	-26.6%	\$ (17.45)	\$ 30,831.75	\$ 41,982.30	-26.6%	
6"	\$ 136.93	\$ 96.50	-29.5%	\$ (40.43)	\$ 58,865.00	\$ 83,527.30	-29.5%	
8"	\$ 197.17	\$ 154.40	-21.7%	\$ (42.77)	\$ 16,829.60	\$ 21,491.53	-21.7%	
10"	\$ 317.64	\$ 221.95	-30.1%	\$ (95.69)	\$ 5,326.80	\$ 7,623.36	-30.1%	
<i>Outside City</i>								
5/8"	\$ 3.67	\$ 2.64	-28.1%	\$ (1.03)	\$ 39,254.16	\$ 49,006.68	-19.9%	
3/4"	\$ 5.52	\$ 3.96	-28.3%	\$ (1.56)	\$ 239,999.76	\$ 300,295.08	-20.1%	
1"	\$ 9.21	\$ 6.60	-28.3%	\$ (2.61)	\$ 46,807.20	\$ 58,584.36	-20.1%	
1 1/2"	\$ 18.38	\$ 13.20	-28.2%	\$ (5.18)	\$ 9,424.80	\$ 11,773.58	-19.9%	
2"	\$ 29.44	\$ 21.12	-28.3%	\$ (8.32)	\$ 15,945.60	\$ 19,944.11	-20.0%	
3"	\$ 64.40	\$ 39.60	-38.5%	\$ (24.80)	\$ 7,642.80	\$ 11,207.90	-31.8%	
4"	\$ 110.34	\$ 66.00	-40.2%	\$ (44.34)	\$ 9,570.00	\$ 14,428.57	-33.7%	
6"	\$ 229.90	\$ 132.00	-42.6%	\$ (97.90)	\$ 17,556.00	\$ 27,574.28	-36.3%	
8"	\$ 331.00	\$ 211.20	-36.2%	\$ (119.80)	\$ 10,560.00	\$ 14,886.20	-29.1%	
10"	\$ 533.40	\$ 303.60	-43.1%	\$ (229.80)	\$ 7,286.40	\$ 12,801.60	-43.1%	
The monthly Fire Protection Charge for Indiana University – Master Metered accounts as a group shall be \$1,480								
Private Fire Protection - Monthly								
4" and Under	\$ 11.04	\$ 15.83	43.4%	\$ 4.79	\$ 44,322.68	\$ 30,912.00	43.4%	
6"	\$ 30.69	\$ 35.84	16.8%	\$ 5.15	\$ 137,099.28	\$ 117,389.25	16.8%	
8"	\$ 62.88	\$ 70.36	11.9%	\$ 7.48	\$ 70,643.46	\$ 63,131.52	11.9%	
10"	\$ 110.15	\$ 122.29	11.0%	\$ 12.14	\$ 5,869.72	\$ 5,287.20	11.0%	
12"	\$ 173.65	\$ 194.25	11.9%	\$ 20.60	\$ 13,986.02	\$ 12,502.80	11.9%	
Total Revenues					\$28,068,458	\$21,483,731		
Total Rate Increase							30.6%	

Schedule 5 Sample Bill Impacts

Residential, 5/8" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
0	\$8.70	\$10.09	\$1.39	16.0%
1	\$13.08	\$15.40	\$2.32	17.8%
2	\$17.46	\$20.72	\$3.26	18.7%
3	\$21.84	\$26.03	\$4.19	19.2%
4	\$26.22	\$31.35	\$5.13	19.5%
5	\$30.60	\$36.66	\$6.06	19.8%
10	\$52.50	\$63.23	\$10.73	20.4%
15	\$74.40	\$89.80	\$15.40	20.7%
20	\$96.30	\$116.37	\$20.07	20.8%
25	\$118.20	\$142.94	\$24.74	20.9%
30	\$140.10	\$169.51	\$29.41	21.0%
50	\$227.70	\$275.80	\$48.10	21.1%

Wholesale, 4" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
200	\$706.40	\$974.64	\$268.24	38.0%
400	\$1,312.40	\$1,873.06	\$560.66	42.7%
600	\$1,918.40	\$2,771.47	\$853.07	44.5%
800	\$2,524.40	\$3,669.89	\$1,145.49	45.4%
1200	\$3,736.40	\$5,466.72	\$1,730.32	46.3%
3000	\$9,190.40	\$13,552.45	\$4,362.05	47.5%
6000	\$18,280.40	\$27,028.67	\$8,748.27	47.9%
10000	\$30,400.40	\$44,996.96	\$14,596.56	48.0%

IU Master Metered, 6" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
200	\$796.78	\$1,098.67	\$301.87	37.9%
400	\$1,394.78	\$2,050.19	\$655.39	47.0%
600	\$1,992.78	\$3,001.72	\$1,008.92	50.6%
800	\$2,590.78	\$3,953.25	\$1,362.45	52.6%
1200	\$3,786.78	\$5,856.31	\$2,069.51	54.7%
3000	\$9,168.78	\$14,420.07	\$5,251.27	57.3%
6000	\$18,138.78	\$28,692.99	\$10,554.19	58.2%
10000	\$30,098.78	\$47,723.56	\$17,624.76	58.6%

Irrigation, 3/4" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
5	\$32.53	\$64.19	\$31.66	97.3%
10	\$57.13	\$118.80	\$61.67	107.9%
20	\$106.33	\$228.03	\$121.70	114.5%
30	\$155.53	\$337.25	\$181.72	116.8%
40	\$204.73	\$446.47	\$241.74	118.1%
50	\$253.93	\$555.70	\$301.77	118.8%
100	\$499.93	\$1,101.82	\$601.89	120.4%

General Service, 3/4" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
1	\$15.19	\$18.30	\$3.11	20.5%
5	\$31.11	\$41.61	\$10.50	33.8%
10	\$51.01	\$70.75	\$19.74	38.7%

General Service, 1" Meter

Usage (kgal)	Current Bill	Proposed Bill	\$ Change	% Change
15	\$75.86	\$104.66	\$28.80	38.0%
20	\$95.76	\$133.79	\$38.03	39.7%
25	\$115.66	\$162.93	\$47.27	40.9%

Sample bills represent typical meter size and usages for each customer class but are not a comprehensive listing of all potential customer bill impacts.