

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF)
MORGAN COUNTY RURAL WATER)
CORPORATION, A NON-PROFIT PUBLIC)
UTILITY LOCATED IN MARTINSVILLE,)
INDIANA, FOR APPROVAL OF A NEW)
SCHEDULE OF RATES AND CHARGES)
FOR WATER UTILITY SERVICE)
)

CAUSE NO. 45198

PETITIONER'S EXHIBIT NO. 2

Verified Prefiled Testimony and Attachments of

Scott A. Miller

Certified Public Accountant and Partner for

H.J. Umbaugh & Associates, Certified Public Accountants, LLP

Sponsoring Petitioner's Attachment No. SAM-1

VERIFIED DIRECT TESTIMONY OF SCOTT A. MILLER, CPA

Introduction

1. Q. Please state your name and business address.

A. My name is Scott A. Miller and my business address is 8365 Keystone Crossing,
Suite 300, Indianapolis, Indiana 46240-0458.

2. Q. What is your profession and for whom are you employed?

A. I am a Certified Public Accountant and a partner in the firm of H.J. Umbaugh &
Associates, Certified Public Accountants, LLP.

3. Q. Can you describe your firm and its area of expertise?

A. Umbaugh is a firm of Certified Public Accountants practicing exclusively as
independent municipal advisors and utility consultants. The firm, in existence
for over sixty-five (65) years, is a regional CPA firm with offices in Indianapolis
and Mishawaka, Indiana; East Lansing, Michigan; and Columbus, Ohio. Our
firm has concentrated its practice in providing financial and municipal advisory
services to various governmental entities and not-for-profit utilities throughout
the Midwest. A large part of our practice involves accounting studies in
connection with changes in utility rates and the financial planning associated
with the acquisition of capital such as tax-exempt and taxable bonds and notes
and other evidences of indebtedness. On January 10, 2019, Umbaugh announced
that it would be combining with Baker Tilly Virchow Krause, LLP ("Baker Tilly")
and Springsted Incorporated ("Springsted") effective March 1, 2019. This

1 combination is not expected to impact my testimony in this case nor is it
2 expected to impact the services provided to MCRW.
3

4 **4. Q. What is your educational experience?**

5 A. In June 1995, I received a Bachelor of Science Degree from the Indiana University
6 Kelley School of Business in Bloomington, Indiana. Since then I have completed
7 various professional courses sponsored by the American Institute of Certified
8 Public Accountants, the Indiana CPA Society, and other professional
9 organizations including the American Public Power Association ("APPA") and
10 the American Water Works Association ("AWWA"). In 1998, I completed the
11 AWWA cost of service and rate-making seminar. In 2010, I completed the APPA
12 Intermediate and Advanced Utility Cost of Service and Retail Rate Design
13 seminars.
14

15 **5. Q. Please describe your relevant professional experience.**

16 A. I joined the firm of Umbaugh in June 1995 and, in 1998, completed the
17 requirements to become licensed as a Certified Public Accountant in the State of
18 Indiana. In July 2000, I assumed the position of client manager within the firm.
19 On July 1, 2005, I became a principal in the firm. On January 1, 2009, I was
20 admitted into the Firm's partnership. Currently, I serve on the Firm's Executive
21 Committee. As a result of the combination with Baker Tilly and Springsted, I
22 will become a partner in Baker Tilly on March 1, 2018. During the past twenty-
23 four years with Umbaugh, I have been involved with many professional

1 engagements including financial studies for municipally-owned water, electric,
2 gas, steam and sewage utilities, for-profit and not-for-profit water and sewer
3 corporations, water authorities, regional water and sewer districts and
4 conservancy districts. These studies quite often have involved the determination
5 of utility revenue requirements, cost of service studies, rate design and the
6 financial planning associated with the issuance of tax-exempt and taxable bonds
7 and notes to fund projects using a variety of financing mechanisms including
8 Rural Development ("RD"), the State Revolving Fund ("SRF"), tax-exempt and
9 taxable bonds and notes issued on the open market and other sources. I have
10 given speeches and participated in panels and workshops concerning utility
11 rates, financing and project development before the Indiana Rural Water
12 Association, the Alliance of Indiana Rural Water, the Indiana Section of the
13 American Water Works Association, the Indiana Association of Sewer
14 Companies, the Indiana Water Environment Association, and Accelerate Indiana
15 Municipalities (formerly the Indiana Association of Cities and Towns).

16
17 **6. Q. With what professional organizations are you associated?**

18 A. I am personally a member of the American Institute of Certified Public
19 Accountants, the Indiana CPA Society, the Indiana Water Environment
20 Association, and the American Water Works Association ("AWWA") and our
21 firm is a member of numerous industry associations including the Indiana Rural
22 Water Association, the Alliance of Indiana Rural Water as well as the Indiana
23 Municipal Electric Association. Our firm is also a strategic partner of Accelerate

1 Indiana Municipalities ("AIM"). In the latter capacity, we provide guidance on
2 financial matters that affect communities across the state. Finally, I am the
3 incoming Chairman of the Indiana Section AWWA Water Utility Council.
4

5 **7. Q. Have you testified before as an expert witness?**

6 A. Yes, I have testified before the Indiana Utility Regulatory Commission on many
7 previous occasions. This testimony has covered the development of appropriate
8 revenue requirements, utility valuation, financing approval and across-the-board
9 and cost of service analysis and rate design.
10

11 **8. Q. Have you reviewed the Verified Petition initiating this Cause?**

12 A. Yes, I have.
13

14 **9. Q. For what purpose have you been retained?**

15 A. We were retained by the Morgan County Rural Water Corporation ("MCRW") to
16 complete a cost of service and accounting study to determine the rates necessary
17 to support the pro forma revenue requirements of MCRW and to make
18 recommendations regarding changes in the design of MCRW's present schedule
19 of rates and charges for service.
20

21 **10. Q. Have the results of your analysis been summarized in a written report?**

22 A. Yes. Our firm prepared MCRW's Attachment SAM-1, an Accounting Report on
23 Cost of Service Rate Study dated January 31, 2019 (the "Accounting Report")

1 summarizing the results of our studies and the accounting services performed
2 for MCRW.

3
4 **11. Q. Was the Accounting Report prepared by you or under your supervision?**

5 A. Yes.

6
7 **12. Q. What were the sources of data used to prepare MCRW's Attachment SAM-1?**

8 A. The information within the exhibits and schedules contained within Attachment
9 SAM-1 came from the audited and unaudited accounting and business records of
10 MCRW, the officers and employees of MCRW with knowledge of the facts based
11 on their job responsibilities and activities, and other sources which I examined in
12 the course of my investigation.

13
14 **13. Q. Is this the type of data normally relied on and used in your business for such**
15 **purposes?**

16 A. Yes.

17
18 **14. Q. Would you please explain MCRW's Attachment SAM-1 to the extent not**
19 **otherwise self-explanatory?**

20 A. The Accounting Report (Attachment SAM-1) is divided into five sections. The
21 first section of the Accounting Report is the accountant's letter, which describes
22 that the type of accounting service provided is a compilation and that the
23 resulting Accounting Report is a special purpose report for submission to the

1 Indiana Utility Regulatory Commission and is restricted to that purpose only.
2 This letter is incorporated by reference on all of the pages of the Accounting
3 Report.

4
5 The second section of the Accounting Report (pages 3 through 9) contains pro
6 forma financial information, including a Utility Capital Improvement Plan. Pages
7 4 through 7 set forth the various calculations of the MCRW's pro forma cash
8 operating expenses based on the twelve months ended July 31, 2018, which was
9 the test year used for the Accounting Report. Pages 8 - 9 summarize the pro
10 forma annual revenue requirements and annual operating revenues included in
11 this cause.

12
13 The third section of the Accounting Report (pages 10 through 22) presents the
14 cost of service study and resulting rates and charges.

15
16 The fourth section of the Accounting Report (pages 23 through 24) presents an
17 updated calculation of MCRW's existing system development charge ("SDC").
18 Finally, the fifth section (pages 25 through 36) contains supplemental data,
19 including comparative accrual basis financial statements and account balances
20 along with amortization schedules of the outstanding waterworks notes.

21
22 **15. Q. What test period was used in the preparation of your Accounting Report?**

1 A. The test period consists of the twelve months ended July 31, 2018. In my opinion,
2 when the results of this test period are combined with appropriate pro forma
3 adjustments, revenues and expenses are fairly representative for current and
4 future operations of the water system.

5
6 **16. Q. Did the results of your analysis indicate that a rate increase is necessary?**

7 A. Yes. Consistent with the statutory elements that govern the establishment of
8 rates for not-for-profit utilities in the State of Indiana, Umbaugh's analysis
9 indicates that an overall increase of approximately 15.38% is justified. In
10 addition, our analysis indicates that an increase in the SDC is also warranted.
11 Based on the recommendations contained in the Accounting Report (Attachment
12 SAM-1), the MCRW Board of Directors authorized the filing of the petition in
13 this case seeking adjustments to the existing rates and charges of the
14 Corporation.

15
16 **17. Q. What is the driving need for this rate increase?**

17 A. The rate increase is driven primarily by the need to perform the capital
18 improvement projects listed on the Utility Capital Improvement Plan, which is
19 found at page 3 of the Accounting Report (Attachment SAM-1), and to provide
20 sufficient revenue to fund MCRW's increased annual operating expenses.

21
22 **Pro Forma Financial Information**

1 **18. Q. How was the proposed utility capital improvement plan developed?**

2 A. The proposed capital improvement plan as seen on page 3 of the Accounting
3 Report (Attachment SAM-1) was developed by evaluating the current and
4 upcoming capital improvement needs of MCRW and scheduling and prioritizing
5 the proposed improvement projects over an eight-year period. The estimated
6 project costs are based on engineering estimates, as further elaborated upon in
7 the direct testimony of Mr. John W. Wetzel in MCRW's Exhibit No.3 and
8 attachment JWW-3, and are split into three categories. The first category, the
9 treatment plant improvements, will likely commence in 2019 and involves
10 replacing the roof and installing a mixing system on tank #3. The second
11 category, transmission and distribution system improvements, involves
12 replacement and or maintenance to radio read meters and various improvements
13 to mains throughout the transmission and distribution system. The third
14 category, equipment, involves various replacements of existing equipment.
15 These projects are estimated to cost approximately \$3,124,200 in the aggregate.
16 Based on an eight year average the proposed annual allowance for capital
17 improvements equals \$390,525.

18
19 **19. Q. Please summarize the adjustments to pro forma operating expenses.**

20 A. The calculation of the pro forma annual cash operating expenses is presented
21 beginning on page 4 of the Accounting Report (Attachment SAM-1), which
22 shows the test year cash operating expenses, including taxes, and the
23 adjustments that have been made to arrive at the pro forma annual cash

1 operating expenses. Each of the adjustments are explained in detail on pages 5
2 through 7 of the Accounting Report. Adjustments have been made to reflect
3 current price levels for labor, employee benefits, taxes, pensions and insurance.
4 In addition, adjustments have been made to provide for periodic costs such as
5 interior and exterior tank painting and maintenance, pump replacement and
6 backwash pond cleaning. Finally, adjustments are made to address non-
7 recurring items, director's fees and rate case expenses.

8
9 **20. Q. Please explain the adjustment to payroll expenses.**

10 A. Adjustment 1, documented on page 5 of the Accounting Report (Attachment
11 SAM-1), shows the anticipated pro forma payroll expense based on the 2019 pay
12 rates approved by MCRW's Board of Directors and the anticipated staffing levels
13 necessary to efficiently operate the Utility. This adjustment results in a net
14 increase in payroll expense of \$7,811 over test year levels.

15
16 **21. Q. Please explain the adjustments to payroll taxes.**

17 A. Adjustment 2, documented on page 5 of the Accounting Report (Attachment
18 SAM-1), related to pro forma employee payroll taxes, reflects the FICA tax
19 assessment on the pro forma salaries and wages. This adjustment results in an
20 increase in payroll tax expense of \$3,815 over test year levels.

21
22 **22. Q. Please explain the adjustment to health insurance.**

1 A. Adjustment 3, documented on page 5 of the Accounting Report (Attachment
2 SAM-1), adjusts the test-year health insurance expense to reflect the renewed
3 medical plan insurance premiums. This adjustment in the monthly health
4 insurance premiums results in an increase in health insurance of \$9,582 per year.

5
6 **23. Q. Please explain the adjustment to pensions.**

7 A. Adjustment 4, documented on page 5 of the Accounting Report (Attachment
8 SAM-1), adjusts the test-year pension expenses to management's 2019 budget.
9 This adjustment results in an increase in pension expenses of \$1,876.

10
11 **24. Q. Please explain the adjustment to workman's compensation.**

12 A. Adjustment 5, documented on page 6 of the Accounting Report (Attachment
13 SAM01) related to workman's compensation expense, reflects the most recent
14 quarterly worker's compensation premium from the test period. Normalizing
15 this amount for twelve months results in an increase in workman's compensation
16 of \$2,196 per year.

17
18 **25. Q. Please explain the adjustment to life and long term disability (LTD) insurance.**

19 A. Adjustment 6, documented on page 6 of the Accounting Report (Attachment
20 SAM-1) presents the anticipated annual expenses for life and LTD insurance
21 based on their respective pro forma monthly premiums. The adjustment results
22 in an increase of \$440 over the test year amount.

23

1 **26. Q. Please explain the adjustments made for periodic maintenance expense.**

2 A. Adjustment 7, documented on pages 6 and 7 of the Accounting Report
3 (Attachment SAM-1), to the test year expenses, adjusts the annual expenses for
4 maintenance expenses that occur regularly but not annually. Proper operation
5 and maintenance of MCRW's facilities includes a variety of activities performed
6 on a periodic basis. These include interior and exterior water tank painting and
7 maintenance, pump replacements and backwash pond cleaning. The estimated
8 expenses and frequencies shown in the Accounting Report were obtained from
9 MCRW's management and the consulting engineer. Please refer to the testimony
10 of John W. Wetzel in MCRW's Exhibit No. 3 and Attachment JWW-2 for
11 additional details on the calculations used to support the allowances for periodic
12 maintenance. Using the engineer's estimates and the cost associated with each
13 activity and the frequency of performance, an allowance was calculated for each
14 activity that reflects an annualized cost for each. When test year periodic
15 maintenance expenditures are considered the overall adjustment is an increase in
16 test year operating expenses of \$63,152.

17
18 **27. Q. Please explain the change in operating expenses for non-recurring or capital**
19 **items.**

20 A. With respect to Adjustment 8, as shown on page 7 of the Accounting Report
21 (Attachment SAM-1), twenty seven thousand thirty nine dollars (\$27,039) in test
22 year operating expense were removed as non-recurring or capital items. That
23 amount reflects expenditures associated with a correction to contractual services

1 for engineering fees that were originally capitalized but are more properly
2 expensed but are still non-recurring in nature. In addition, engineering fees
3 associated with a possible line relocation project in the Latta Subdivision in
4 Monrovia, Indiana have been eliminated.

5
6 **28. Q. Please explain the insurance adjustment.**

7 A. Adjustment 9, documented on page 7 of the Accounting Report (Attachment
8 SAM-1), reflects a 10% increase in the current quarterly vehicle insurance
9 premiums and no increase in the current liability insurance premiums based on
10 information from MCRW's insurance provider. This adjustment resulted in a
11 decrease of \$1,946 to the test year amount.

12
13 **29. Q. Please explain the director's fee adjustment.**

14 A. Adjustment 10, documented on page 7 of the Accounting Report (Attachment
15 SAM-1), reflects an increase in the director fees based on the budget provided by
16 management. The resulting increase is a \$150 increase over the test year amount.

17
18 **30. Q. Please explain the IURC Rate Case Adjustment.**

19 A. Adjustment 11, documented on page 7 of the Accounting Report (Attachment
20 SAM-1) the final adjustment to test year expenses, takes the anticipated IURC
21 rate case expenses and amortizes the costs over the projected period between rate
22 cases. The twelve year period is based on the length of time between this new
23 rate case and the prior rate case filed in 2006.

1
2 **31. Q. What are the total revenue requirements that MCRW must recover on an**
3 **annual basis to operate its water system?**

4 A. Pages 8 and 9 of the Accounting Report (Attachment SAM-1) summarize the pro
5 forma annual revenue requirements of MCRW. The pro forma revenue
6 requirements incorporate the adjusted operation and maintenance expenses of
7 \$1,346,876, current debt service requirements of \$534,564 and replacements and
8 improvements of \$390,525. The total annual net revenue requirements have been
9 estimated at \$2,218,177 after deducting test year penalties, interest income,
10 reconnect fees and farm rent.

11
12 In order to provide sufficient revenues to meet the annual revenue requirements,
13 the test year revenues of \$1,922,564 would need to be increased by \$295,613 or
14 approximately 15.38 percent across-the-board.

15
16 **Cost of Service Study**

17
18 **32. Q. Mr. Miller, would you please describe the general purpose of a cost of service**
19 **study?**

20 A. A cost of service study is a detailed analysis of the cost drivers that influence the
21 provision of service to a utility's customers. The goal of the study is to determine
22 the appropriate level of cost recovery allocable to each customer class. The cost
23 of service study is normally done in conjunction with and leads to the creation of

1 a rate design that recovers costs from the appropriate customer class as closely as
2 possible to the allocated cost of service.

3
4 **33. Q. Are there different accepted methodologies of conducting a cost of service**
5 **study that are employed in practice and if so, which did you use in this case?**

6 A. Yes there are different accepted methodologies. For purposes of allocating costs
7 to the customer classes and designing proposed rates for MCRW's water utility, I
8 have employed the Base-Extra Capacity method promulgated by the American
9 Water Works Association ("AWWA") in its sixth edition of *Principles of Water*
10 *Rates, Fees and Charges* (the "M1 Manual"). This methodology has been widely
11 accepted in Indiana and by this Commission in numerous previous cases.

12
13 The Base-Extra Capacity method is built upon the allocation of both the utility's
14 investment in plant and its proposed revenue requirements to the various
15 functional cost categories of the utility. These functional cost categories include
16 base, extra capacity, customer and direct fire protection (not included for this
17 filing). Base or average day capacity costs reflect items that vary based upon the
18 amount of water used under average usage conditions. Extra capacity costs are
19 usually divided between maximum day and maximum hour and include those
20 costs that are designed to meet demands in excess of the average day and
21 maximum day respectively. As the name implies, customer costs generally vary
22 based upon the number of customers connected to the system and are usually
23 divided between meter costs and billing costs. Finally direct fire protection

1 includes those costs that are incurred in order to not only maintain fire hydrants
2 within the system but also to provide for a portion of the cost recovery of the
3 system oversizing that is required to provide sufficient flows and pressures in
4 order to adequately address a fire event. For purposes of this filing, no
5 allocations to direct fire protection have been included since MCRW's system is
6 not designed or rated for fire protection services.

7
8 Once the costs have been allocated to the functional categories, they are assigned
9 to the various customer classes based upon each customer classes' usage
10 characteristics and their associated responsibility for those costs. After the cost
11 responsibility for each customer class has been determined, a rate structure can
12 then be designed that appropriately recovers those costs.

13
14 **34. Q. Would you please explain more fully the details of your cost of service study**
15 **and rate design calculations?**

16 A. As I mentioned, each of the revenue requirements are first allocated to the
17 functional cost categories, and then assigned to each customer classification
18 based upon each of the classes' responsibility for those functional costs. The
19 allocated cost of service for each customer classification is then used as a basis for
20 developing the proposed rates and charges. These calculations begin with a
21 detailed analysis of the test year billing determinants in order verify their
22 statistical validity for rate-setting purposes.

23

1 Page 10 of my Cost of Service Study included in the Accounting Report
2 (Attachment SAM-1) shows a summary of this analysis by presenting MCRW's
3 usage characteristics and test year metered billings, including monthly minimum
4 charges and volume charges. The consumer analysis control period variance was
5 0.03% for water usage charges. This small variance indicates that the analysis and
6 the underlying billing determinants are statistically valid for rate-making
7 purposes.

8
9 Page 11 of my Cost of Service Study included in the Accounting Report
10 (Attachment SAM-1) presents the calculation of the test year equivalent meters
11 by customer class. Annual bills are multiplied by the appropriate equivalency
12 factor to arrive at equivalent connections. The equivalency factors used are those
13 followed in the M1 Manual. These calculations reflect the fact that larger size
14 connections have the ability to place greater demands on the system and
15 therefore generally receive a larger cost allocation than small connections.

16
17 Summarized on page 12 of my Cost of Service Study included in the Accounting
18 Report (Attachment SAM-1) are the units of service for each customer
19 classification based upon information extracted from MCRW's billing records for
20 the test year and adjusted for capacity factors as calculated by using AWWA
21 methodologies. The three customer classifications are residential, commercial
22 and public authority & other. The column entitled "Normalized Annual Sales"
23 reflects the billed consumption for each rate classification for the test year. The

1 total sales are used as the basis for allocating the base costs of service. For
2 instance, the average daily demand for service is anticipated to be 177,465,200
3 gallons. The residential average demands amount to 154,982,800 gallons or
4 approximately 87 percent of the total average daily demand. Consequently, the
5 residential users would be responsible for approximately 87 percent of the base
6 costs of providing water service.

7
8 The average daily demands for each rate classification have been multiplied by
9 the imputed capacity factors to determine the responsibility each customer class
10 has for the extra capacity costs associated with meeting maximum day demands
11 and maximum hour demands for service. For instance, the total maximum day
12 demand has been calculated at 1,493,700 gallons per day. This exceeds the
13 average day demand of 486,200 gallons and results in extra maximum day
14 capacity of 1,007,500 gallons. The extra maximum day capacity of the residential
15 customers amounts to 849,200 gallons per day, or approximately 84 percent of
16 the total maximum day extra capacity. Accordingly, approximately 84 percent of
17 the costs related to meeting the extra maximum day demands for service are
18 allocable to the residential customers. The maximum hour demand has been
19 calculated at a rate of 2,276,600 gallons per day. This capacity exceeds the
20 average daily demands of 486,200 gallons and the extra capacity for maximum
21 day demands of 1,493,700 gallons resulting in extra capacity for maximum hour
22 demands of 782,900 gallons.

1 **35. Q. You mentioned that you imputed some of the capacity factors. Would you**
2 **please explain the nature of the capacity factors and how you arrived at the**
3 **figures presented?**

4 A. Unlike large utilities, it did not seem prudent for MCRW, to incur the cost of a
5 detailed customer class capacity factor study. Instead, the M1 Manual provides a
6 detailed description regarding two alternative methodologies for calculating
7 capacity factors. In this case, as in numerous prior cases before the Commission,
8 I employed the simplified methodology described to determine noncoincident
9 capacity factors for each customer class. Generally, this methodology works well
10 for smaller utilities but in some cases, because of a lack of data, certain inferences
11 must be made based upon sound rate-making principles and practitioner
12 experience. These capacity factors are the foundation upon which the allocations
13 of cost are made. The maximum day capacity factors reflect the relationship of
14 each customer class' maximum day requirements to its average day
15 requirements. Likewise, the maximum hour capacity factors reflect the
16 relationship of each customer class' maximum hour requirements to its average
17 usage. For example, page 12 shows that the calculated residential capacity factor
18 of 300 results in expected maximum day total capacity needs of 1,273,800 gallons
19 which is 300% or 3.0 times the actual average day requirement of 424,600 for
20 residential customers. Similarly, the calculated residential maximum hour total
21 capacity of 1,910,700 gallons is 4.5 times the actual average day requirement of
22 424,600 gallons for residential users.

1 As is often the case, MCRW does not track its maximum hour rate of customer
2 demand. This amount, however, figures into the calculation of capacity factors.
3 In these situations, we impute an appropriate value based upon the design limits
4 of various components of the system such as wells, high service pumps, filters or
5 other capacity restricted infrastructure. The goal of these calculations is to
6 produce capacity factors that are reasonable and that are ideally within the
7 acceptable tolerance limits discussed in the M1 Manual. The capacity factors
8 used in the study achieve that goal.
9

10 **36. Q. Thank you. Please continue with the explanation of your Cost of Service**
11 **Study report.**

12 A. The number of bills for each customer classification was obtained directly from
13 the billing records of MCRW and was subsequently used as a basis for allocating
14 customer costs related to billing. The number of connections for each customer
15 classification has been weighted by equivalency factors to equate larger size
16 meters to a standard residential 5/8-inch water meter. The equivalent
17 connections for each customer classification are used as a basis for allocating
18 customer related costs associated with meters and services. The ratios developed
19 using the units of service data on page 12 of the Accounting Report (Attachment
20 SAM-1) are used for subsequent allocations.
21

22 The next several pages of the Accounting Report detail the allocation of MCRW's
23 investment in plant and the pro forma revenue requirements to the functional

1 cost categories and ultimately to the customer classes. On pages 13 and 14 of the
2 Accounting Report, MCRW's utility plant as of July 31, 2018 has been allocated to
3 the various functional cost categories.

4
5 Pages 15 and 16 of the Accounting Report present the allocation of the pro forma
6 annual operation and maintenance expenses to each of the functional cost
7 categories.

8
9 On page 17 of the Accounting Report, the pro forma unit costs of service, as
10 allocated to each of the functional cost categories on the preceding pages, are
11 divided by the units of service as calculated on page 12 of the Accounting Report
12 to arrive at the pro forma cost of service per unit. For example, page 17 of the
13 Accounting Report shows \$378,913 of the operation and maintenance expenses,
14 \$126,210 of debt service and \$92,203 of replacements and improvements have
15 been allocated to the base cost of service. Therefore \$597,326 of pro forma costs
16 of service to be recovered through rates is allocable to base cost. Dividing these
17 allocated base costs by the test year billed usage results in a pro forma base cost
18 of service of \$3.3659 per unit of service, in this case 1,000's of gallons. Similar
19 calculations have been made for the extra capacity costs and the customer costs.

20
21 On page 18 of the Accounting Report, the cost of service per unit is then applied
22 to the corresponding units of service for each customer classification as
23 developed on page 12 of the Accounting Report to arrive at each customer

1 classes' responsibility for those functional costs. For example, applying the base
2 cost of service of \$3.3659 per unit of service to the test year billed consumption of
3 the residential users results in a base cost of service for the residential users of
4 \$521,657. Likewise, applying the cost of service per unit for maximum day extra
5 capacity of \$558.8288 to the residential units of service allocates \$474,557 of extra
6 capacity maximum day costs to residential users. The sum of each customer
7 classifications' responsibility for each of the functional cost categories equals the
8 total allocated cost of service for each customer classification. Of the \$2,218,177
9 total pro forma net revenue requirements to be provided through rates and
10 charges, \$1,936,542 or 87.3 percent, are allocable to residential customers,
11 \$105,879 or 4.8 percent are allocable to the commercial class and \$175,756, or 7.9
12 percent are allocable to the public authority and other class.

13
14 Page 19 of the Accounting Report calculates the proposed monthly base charge
15 by meter size. The meter cost per unit is adjusted based on the appropriate
16 equivalency factor for each meter size and then added to the billing cost per unit
17 to arrive at the monthly base charge. As part of this rate restructuring, MCRW
18 intends to eliminate its existing minimum charge by meter size and instead
19 convert to the monthly base charge shown on page 19.

20
21 Page 20 of the Accounting Report shows the calculation of the pro forma annual
22 revenues for each rate classification at the proposed rates and charges. In this
23 case, we are proposing to consolidate MCRW's existing five tier declining block

1 rate structure into a single flow rate per 1,000 gallons. In addition to the monthly
2 base charge I just described, all water sold would be billed at \$9.72 per 1,000
3 gallons regardless of customer classification. The proposed rates and charges
4 when applied to test year billing determinants result in calculated revenues that
5 are within \$917 of the total net revenue requirement.

6
7 Page 21 of the Accounting Report compares the proposed cost of service as
8 determined on page 18 of the Accounting Report with the normalized annual
9 revenues generated under the existing rates and charges and revenues generated
10 under the proposed rates for each customer classification.

11
12 For MCRW to achieve the allocated cost based targets compared to test year
13 normalized revenues, average residential revenues would be increased
14 approximately 8.06%, commercial revenues would be increased approximately
15 69.90% and public authority & other revenues would be increased approximately
16 157.81%. In order to mitigate rate shock for the Commercial and Public Authority
17 classes, we have left some cross-subsidization embedded in the proposed rate
18 structure. The actual increases experienced by each class under the proposed
19 rates are as follows – Residential 14.19%, Commercial 53.98% and Public
20 Authority 12.55%.

21
22 Page 22 of the Accounting Report summarizes the present and proposed water
23 rates and charges. The rates proposed for residential, commercial and public

1 authority & other customers consist of a single volumetric rate of \$9.72 per 1,000
2 gallons and a monthly service charge based on the customer's meter size. The
3 existing minimum charges have been eliminated and replaced with the base
4 charge. Assuming MCRW does not file for and receive approval for a new
5 tracking factor prior to the conclusion of this case (and the implementation of
6 any approved rate increase), the tracking factor would be reset to \$0.00 as that
7 component of the rate structure will have been incorporated or "rolled into" the
8 new base rates and charges.

9
10 **37. Q. Does MCRW intend to remove the Western Expansion surcharge?**

11 A. Yes, as part of this filing MCRW intends to remove the Western Expansion
12 Surcharge which was first established in 2001 under Cause Nos. 41848 and 42025.
13 Currently, customers in the western expansion area are charged \$9.74 per month
14 in addition to their normal monthly bill. MCRW intends to remove this charge in
15 order for all customers on the system to be billed under the proposed rate
16 structure. The loss in revenues resulting from the removal of the surcharge
17 would subsequently be spread over all customers throughout the system, thus all
18 customers on the system would be charged under the same rate structure. Please
19 refer to the testimony of Mr. Glen C. Miller in MCRW's Exhibit No. 1 for
20 additional details on the elimination of the Western Expansion surcharge.

21
22 **System Development Charge**

1 **38. Q. Please describe your calculations related to the proposed system development**
2 **charge.**

3 A. MCRW implemented its existing system development charge ("SDC") over ten
4 years ago upon the conclusion of Cause No. 42776. That calculation was made
5 using the equity method as described in the M1 manual. Given the passage of
6 time, MCRW believes it is appropriate to update the calculation to reflect current
7 costs and equity levels. To that end, on page 23, we have recalculated the SDC
8 using current data. We first begin by taking the existing Utility Plant in Service as
9 of July 31, 2018 and reducing it by the accumulated depreciation as of the same
10 date to arrive at the Net Utility Plant in Service. From the Net Utility Plant in
11 Service, we then reduce this amount by the outstanding long-term debt and the
12 contributions in aid of construction. The net amount is then divided by the
13 estimated number of equivalent dwelling units ("EDUs"). Based on the
14 calculation, the MCRW could justify a new SDC of up to \$1,461. In an effort to
15 avoid curtailing growth in its service area, MCRW is only requesting a system
16 development charge of \$750 per equivalent unit at this time. Page 24 of the
17 Accounting Report (Attachment SAM-1) shows the calculation of the new SDC
18 by meter size using the approved equivalent factors as applied to the
19 recalculated per equivalent unit.

20
21 **Conclusion**
22

23 **39. Q. Does this conclude the explanation of MCRW's Attachment SAM-1?**

24 A. Yes it does.

1

2 **40. Q. Can MCRW generate the revenue necessary to complete the capital**
3 **improvements included in the Utility Capital Improvement Plan under**
4 **MCRW's current rates and charges?**

5 A. No, it cannot. The net revenues at present rates are insufficient to accumulate
6 sufficient funds to pay for the proposed capital improvements.

7

8 **41. Q. Is it your opinion that the rates proposed in your Accounting Report are fair,**
9 **just, non-discriminatory and reasonable and necessary to meet the pro forma**
10 **revenue requirements of the utility?**

11 A. Yes, it is my opinion that they are.

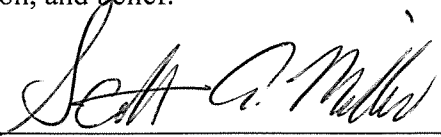
12

13 **42. Q. Does this conclude your direct testimony in this Cause?**

14 A. This concludes my direct testimony at this time.

VERIFICATION

I, Scott A. Miller, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.



Scott A. Miller

Date: February 1, 2019

Petitioner's Attachment SAM-1

IURC Cause No. _____

***MORGAN COUNTY RURAL WATER
COPRORATION***

***Accounting Report On
On Cost of Service
Rate Study***

January 31, 2019

UMBAUGH

Indianapolis, Indiana

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ACCOUNTANTS' RATE STUDY AND COMPILATION REPORT

January 31, 2018

Board of Directors
Morgan County Rural Water Corporation
1395 East Shore Drive, P.O. Box 1575
Martinsville, IN 46151

RE: Morgan County Rural Water Corporation (the "Corporation")

In connection with the Corporation's proposed increase in water rates and charges, we have, at your request, compiled this special purpose report for submission to the Indiana Utility Regulatory Commission.

This special purpose report has been prepared for the purpose of requesting approval of a new schedule of water rates and charges by the Indiana Utility Regulatory Commission and should not be used for any other purpose.

Further, the pro forma financial information in this report which has not been compiled, reviewed or audited by us, is based upon financial information for the twelve months ended July 31, 2018, which was compiled by us and assumptions provided by management and their consulting engineers or obtained from other sources. This pro forma financial information is prepared for the purpose of showing the estimated financial effects on the utility's revenue and revenue requirements of the debt service resulting from the increase in rates and charges for service and other changes that may be reasonably fixed, known or measured, excluding provisions for future inflation. The actual results achieved may vary from the pro forma information and the variations may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

We have compiled the accompanying comparative statement of net position of the Corporation as of December 31, 2015, 2016 and 2017 and July 31, 2018 and the related comparative statements of revenues, expenses, and changes in net position, and cash flows for the periods then ended and supplementary data. We have not audited or reviewed the accompanying historical financial statements and supplementary data, and accordingly, do not express an opinion or provide any assurance about whether the financial statements are in accordance with accounting principles generally accepted in the United States of America.

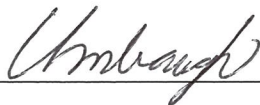
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Board of Directors
Morgan County Rural Water Corporation
Date: January 31, 2018
Page 2

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America and for designing, implementing, and maintaining internal control relevant to the preparation and fair presentation of the financial statements.

Our responsibility is to conduct the compilation in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. The objective of a compilation is to assist management in presenting financial information in the form of financial statements without undertaking to obtain or provide any assurance that there are no material modifications that should be made to the financial statements.

Management has elected to omit substantially all of the disclosures required by generally accepted accounting principles. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the Corporations' financial position, results of operations and its cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.



MORGAN COUNTY RURAL WATER CORPORATION

PRO FORMA FINANCIAL INFORMATION

MORGAN COUNTY RURAL WATER CORPORATION

UTILITY CAPITAL IMPROVEMENT PLAN

**Provided by Utility Management
(Amounts rounded to the nearest \$100)**

	Estimated Project Year								
	2019	2020	2021	2022	2023	2024	2025	2026	Totals
Treatment Plant:									
Install mixing system on Tank #3	\$25,000								\$25,000
Replace WTP roof	35,000								35,000
Transmission and Distribution System:									
Radio read meter replacement/maintenance	39,300	\$39,300	\$39,300	\$39,300	\$42,500	\$42,500	\$42,500	\$42,500	327,200
Section 1 - Wilbur Rd/N Shore Cross Country SR 67 to Shelton Rd (8")			631,000						631,000
Section 3 - Brandywine Rd East of Wilbur (6")					391,000				391,000
Section 5 - Briarwood Rd Cross Country from Briarhopper Rd to Briarwood Lake West Drive (8")						180,000			180,000
Section 2 - M-G Schools to Bunkerhill Rd (8")							400,000		400,000
Section 6 - Booster Station No. 1 Improvements								715,000	715,000
Equipment:									
Replace Unit #107; 2007 Ford pickup truck	35,000								35,000
Replace Unit #099; 1999 Ford 1-ton truck		65,000							65,000
Replace Unit #112; 2012 Chevrolet pickup truck		40,000							40,000
Replace case 580 (x) backhoe, w/ Extendahoe, buckets 12", 24" and 36", forks and grapple		150,000							150,000
Replace Unit #108; 2008 Chevrolet pickup truck			40,000						40,000
Replace case excavator			50,000						50,000
Replace Unit #114, 2014 Chevrolet pickup truck				40,000					40,000
Total Capital Improvements	<u>\$134,300</u>	<u>\$294,300</u>	<u>\$760,300</u>	<u>\$79,300</u>	<u>\$433,500</u>	<u>\$222,500</u>	<u>\$442,500</u>	<u>\$757,500</u>	3,124,200
Divide by 8 years									8
Average Annual Capital Improvements:									<u><u>\$390,525</u></u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(See Explanation of Adjustments 5 - 7)

<u>Operating Expenses:</u>	Test Year Ended 7/31/2018	Adjustment	Ref.	Pro Forma Operating Expenses
Source of Supply - Operations:				
Salaries and wages	\$8,200	(\$2,832)	(1)	\$5,368
Purchased water	130,153			130,153
Purchased power	21,772			21,772
Materials and supplies	206			206
Source of Supply - Maintenance:				
Repairs and maintenance	4,471	2,190	(7)	6,661
Rental of equipment	6,100			6,100
Water Treatment Plant - Operations:				
Salaries and wages	54,513	(19,705)	(1)	34,808
Purchased power	44,772			44,772
Materials and supplies	229			229
Chemicals	13,297			13,297
Miscellaneous	574			574
Water Treatment Plant - Maintenance:				
Materials and supplies	4,374			4,374
Repairs and maintenance	19,570	(6,579)	(7)	12,991
Contractual services	3,300	(2,950)	(7)	350
Transmission and Distribution - Operations:				
Salaries and wages	150,125	3,889	(1)	154,014
Purchased power	44,365			44,365
Materials and supplies	951			951
Contractual services	27,569			27,569
Transportation	27,390			27,390
Transmission and Distribution - Maintenance:				
Materials and supplies	6,612			6,612
Repairs and maintenance	25,611	70,491	(7)	96,102
Contractual services	16,927	(16,839)	(8)	88
Customer Accounts:				
Salaries and wages	131,818	(6,395)	(1)	125,423
Materials and supplies	8,604			8,604
Repairs and maintenance	1,983			1,983
Contractual services	16,620			16,620
Bad debt	3,569			3,569
Miscellaneous	10,829			10,829
Administrative and General:				
Salaries and wages	122,512	32,854	(1)	155,366
Employee benefits	121,915	14,094	(3)(4)(5)(6)	136,009
Director's fees	17,250	150	(10)	17,400
Materials and supplies	9,141			9,141
Repairs and maintenance	7,385			7,385
Contractual services	88,823	9,800	(8)(11)	98,623
Transportation	1,240			1,240
Insurance	31,926	(1,946)	(9)	29,980
Telephone	20,838			20,838
Regulatory commission expense	16,266			16,266
Payroll taxes	32,521	3,815	(2)	36,336
Miscellaneous	12,518			12,518
Totals	\$1,266,839	\$80,037		\$1,346,876

(See Accountants' Report)

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(Explanation of Adjustments)

Adjustment (1) - Salaries and Wages

To adjust test year salaries and wages to reflect management estimates of staffing levels and pay rates.

	<u>Pro Forma</u>	<u>Less Test Year</u>	<u>Adjustments</u>
Pro forma SSO salaries and wages	\$5,368	(\$8,200)	(\$2,832)
Pro forma WTO salaries and wages	34,808	(54,513)	(19,705)
Pro forma TDO salaries and wages	154,014	(150,125)	3,889
Pro forma CA salaries and wages	125,423	(131,818)	(6,395)
Pro forma ADM salaries and wages	<u>155,366</u>	<u>(122,512)</u>	<u>32,854</u>
Total	<u>\$474,978</u>	<u>(\$467,168)</u>	<u>\$7,811</u>

Adjustment (2) - Payroll Taxes

To adjust test year payroll expenses to reflect pro forma salaries and wages.

Pro forma salaries and wages	\$474,978
Times Current FICA Rate	<u>7.65%</u>
Sub-total	36,336
Less test year FICA expense	<u>(32,521)</u>
Adjustment	<u>\$3,815</u>

Adjustment (3) - Health Insurance

To adjust test year health insurance expenses to reflect the renewed medical plan health insurance premiums.

Pro forma monthly health insurance premiums (MCRW paid portion)	\$8,460
Times 12 months	<u>12</u>
Pro forma annual health insurance expense	101,520
Less test year health insurance expense	<u>(91,938)</u>
Adjustment	<u>\$9,582</u>

Adjustment (4) - Pensions

To adjust test year pension expenses to reflect management 2019 budget.

Pro forma pension expense	\$14,000
Less test year pension expense	<u>(12,124)</u>
Adjustment	<u>\$1,876</u>

(Continued on next page)

(See Accountants' Report)

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING EXPENSES
(Explanation of Adjustments)

Adjustment (5) - Workman's Compensation

To adjust test year workman's compensation expenses to reflect the most recent quarterly payment.

Pro forma quarterly workman's compensation premium	\$2,012
Times 4 quarters	<u>4</u>
Pro forma annual workman's compensation expense	8,048
Less test year workman's compensation expense	<u>(5,852)</u>
Adjustment	<u><u>\$2,196</u></u>

Adjustment (6) - Life and LTD Insurance

To adjust test year life and LTD insurance expenses to reflect the most recent quarterly payment.

Pro forma monthly LTD insurance premiums	\$286
Pro forma monthly life insurance premiums	<u>281</u>
Pro forma monthly LTD and life insurance premiums	567
Times 12 months	<u>12</u>
Pro forma annual LTD and life insurance expense	6,804
Less test year LTD and life insurance expense	<u>(6,364)</u>
Adjustment	<u><u>\$440</u></u>

Adjustment (7) - Periodic Maintenance

To adjust test year for periodic maintenance expenses.

Tank 1 - 244,000 Gallon Reservoir (repaint interior and exterior)	\$194,000
Tank 2 - 75,000 Gallon Elevated (repaint interior and exterior)	249,000
Tank 3 - 338,000 Gallon Standpipe (repaint interior and exterior)	231,000
Tank 4 - 260,000 Gallon Reservoir (repaint interior and overcoat exterior)	165,000
Tank 5 - 250,000 Gallon Elevated (repaint interior and overcoat exterior)	200,000
Tank 7 - 500,000 Gallon Elevated (repaint interior and overcoat exterior)	<u>210,000</u>
Sub-total	1,249,000
Divided by 20 years	<u>20</u>
Sub-total	\$62,450
Plus interior tank cleaning and inspection maintenance	10,000
Less interior tank cleaning and inspection maintenance in the test year	<u>(7,430)</u>
Adjustment (to TDM repairs and maintenance)	<u><u>\$65,020</u></u>
High service booster pump replacement (\$7,300 per pump; 8 pumps every 10 years)	\$5,840
Less test year amount	<u>(369)</u>
Adjustment (to TDM repairs and maintenance)	<u><u>\$5,471</u></u>
Pump replacements for wells (\$7,300 per pump; 3 pumps every 10 years)	\$2,190
Less test year amount	<u>-</u>
Adjustment (to SSM repairs and maintenance)	<u><u>\$2,190</u></u>

(Continued on next page)

(See Accountants' Report)

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING EXPENSES

(Explanation of Adjustments)

Adjustment (7) - Periodic Maintenance (Cont'd)

Pump replacements for plant (\$7,300 per pump; 2 pumps every 10 years)	\$1,460	
Less test year amount	(8,039)	
		<u>(\$6,579)</u>
Adjustment (to WTM repairs and maintenance)		
Backwash pond cleaning (\$3,500 every 10 years)	\$350	
Less test year WTM contractual services for backwash pond cleaning	(3,300)	
		<u>(\$2,950)</u>
Adjustment (to WTM contractual services)		

Adjustment (8) - Capital or Non-Recurring Items

To adjust the test year for capital or non-recurring items.

<u>Account</u>	<u>Description</u>	<u>Adjustment</u>
602300 ADM Contractual Services - Engineering	Correction (expense, not capital); non-recurring	(\$10,200)
602300 TDO Contractual Services - Engineering	Latta addition; non-recurring	(16,839)

Adjustment (9) - Insurance

To adjust test year insurance expense to reflect a 10% increase in current vehicle insurance premiums and current liability insurance premiums.

Pro forma monthly vehicle insurance expense (\$2,046.75 times 110%)	\$2,251	
Pro forma monthly liability insurance (\$4,170.25 plus \$574 plus \$500)	5,244	
		<u>7,495</u>
Pro forma monthly vehicle and liability expense	7,495	
Times 4 quarters	4	
		<u>29,980</u>
Pro forma annual vehicle and liability insurance expense	29,980	
Less test year insurance expense	(31,926)	
		<u>(\$1,946)</u>
Adjustment		

Adjustment (10) - Director's fees

To adjust test year director's fees to reflect the increase in monthly fees.

Pro forma director's fees	\$17,400	
Less test year expense	(17,250)	
		<u>\$150</u>
Adjustment		

Adjustment (11) - IURC Rate Case Adjustment

To amortize the estimated IURC rate case expense over the historical average length of time between rate cases.

Estimated IURC rate case expense	\$240,000	
Divide by 12 years	12	
		<u>\$20,000</u>
Adjustment		

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

PRO FORMA ANNUAL REVENUE REQUIREMENTS
AND ANNUAL OPERATING REVENUES

See Explanation of References, page 9

	<u>Test Year</u>	<u>Adjustment</u>	<u>Ref</u>	<u>Pro Forma</u>
<u>Revenue Requirements:</u>				
Operation and Maintenance Expenses	\$1,266,839	\$80,037	(1)	\$1,346,876
Debt Service:				
Outstanding 2001 Rural Development Loan	229,578	66	(2)	229,644
Outstanding 2008 Rural Development Loan	300,101	4,819	(3)	304,920
Replacements and Improvements	<u>154,389</u>	<u>236,136</u>	(4)	<u>390,525</u>
 Total Annual Revenue Requirements	 1,950,907	 321,058		 2,271,965
 Less Test Year Surcharges	 (60,574)	 60,574	(5)	 -
Less Test Year Penalties	(15,446)	-	(6)	(15,446)
Less Test Year Interest Income	(7,780)	-	(6)	(7,780)
Less Test Year Reconnect Fees	(18,562)	-	(6)	(18,562)
Less Test Year Farm Rent	<u>(12,000)</u>	<u>-</u>	(6)	<u>(12,000)</u>
 Net Annual Revenue Requirements	 <u><u>\$1,836,545</u></u>	 <u><u>\$381,632</u></u>		 <u><u>\$2,218,177</u></u>
<u>Annual Revenues:</u>				
Metered Sales	<u><u>\$1,922,564</u></u>	<u><u>\$ -</u></u>	(6)	<u><u>\$1,922,564</u></u>
 Additional Revenue Required				 <u><u>\$295,613</u></u>
 Approximate Across-The-Board Increase In Present Rates and Charges				 <u><u>15.38%</u></u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

PRO FORMA ANNUAL REVENUE REQUIREMENTS
AND ANNUAL OPERATING REVENUES

- (1) To reflect pro forma operation and maintenance expenses as calculated on pages 4 - 7.
- (2) To reflect the average annual debt service on the outstanding 2001 Rural Development Loan, see page 34.

Pro Forma Amount	\$229,644
Less Test Year Amount	<u>229,578</u>
	<u><u>\$66</u></u>

- (3) To reflect the average annual debt service on the outstanding 2008 Rural Development Loan, see page 35.

Pro Forma Amount	304,920
Less Test Year Amount	<u>300,101</u>
	<u><u>\$4,819</u></u>

- (4) To provide an allowance for replacements and improvements equal to the annual utility capital improvements plan, see page 3.
- (5) To reflect the elimination of the current Western Expansion surcharge.
- (6) Assumed at test year amounts.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

COST OF SERVICE STUDY

MORGAN COUNTY RURAL WATER CORPORATION

CONSUMER STUDY SUMMARY

(Test Year Ended 7/31/2018)

	Minimum				Usage Billings					
	Minimum Usage (1,000 Gallons)	Number of Bills	Times Rate	Revenues	Number of Bills	First 2,500 Gal Block Usage	Next 7,500 Gal Block Usage	Next 15,000 Gal Block Usage	Next 25,000 Gal Block Usage	Over 50,000 Gal Block Usage
Minimum Charge:						(----- 1,000 Gallons -----)				
5/8 - 3/4 inch meter	18,518	13,425	\$27.33	\$366,905	26,948	67,370	62,877	6,348	1,264	564
1 inch meter	142	61	54.67	3,335	128	320	834	884	792	4,068
1 1/2 inch meter	-	-	147.77	-	-	-	-	-	-	-
2 inch meter	25	11	211.65	2,328	41	103	308	614	830	3,497
3 inch meter	11	1	411.44	411	35	88	263	525	866	6,263
4 inch meter	-	-	458.49	-	-	-	-	-	-	-
6 inch meter	-	-	1,375.64	-	-	-	-	-	-	-
Totals						67,880	64,281	8,371	3,752	14,393
Times rate						\$10.93	\$10.52	\$8.10	\$5.68	\$3.29
Test Year Totals	<u>18,697</u>	<u>13,498</u>		<u>\$372,979</u>	<u>27,152</u>	<u>\$741,928</u>	<u>\$676,234</u>	<u>\$67,804</u>	<u>\$21,313</u>	<u>\$47,352</u>
Total Test Year Bills										<u>40,650</u>
Total Test Year Usage										<u>177,374</u>
Calculated Test Year Usage Revenues										\$1,927,610
Surcharge Revenues:		<u>6,255</u>	\$9.74	<u>\$60,924</u>						<u>60,924</u>
Total Surcharge Revenues										
Total Revenues										1,988,534
Less: Adjustments (1)										<u>(5,910)</u>
Net Total Revenues										<u>\$1,982,624</u>
Total Control Revenues										<u>\$1,983,138</u>
Variance										<u>\$514</u>
Percentage Variance										<u>0.03%</u>

(1) Total billing adjustments account for an additional 91,700 gallons.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

CALCULATION OF TEST YEAR EQUIVALENT METERS

(Based upon test year service charge billings)

		Normalized Annual Bills	Average Connections	Equivalency Factor	Equivalent Meters and Services
Metered users:					
<u>Residential</u>					
5/8 - 3/4	inch meter	39,721	3,310	1.0	3,310
1	inch meter	81	7	2.5	18
1 1/2	inch meter	-	-	5.0	-
2	inch meter	28	2	8.0	16
3	inch meter	12	1	15.0	15
4	inch meter	-	-	25.0	-
6	inch meter	-	-	50.0	-
8	inch meter	-	-	80.0	-
Sub-totals		39,842	3,320		3,359
<u>Commercial</u>					
5/8 - 3/4	inch meter	544	45	1.0	45
1	inch meter	84	7	2.5	18
1 1/2	inch meter	-	-	5.0	-
2	inch meter	12	1	8.0	8
3	inch meter	-	-	15.0	-
4	inch meter	-	-	25.0	-
6	inch meter	-	-	50.0	-
8	inch meter	-	-	80.0	-
12	inch meter	-	-	115.0	-
Sub-totals		640	53		71
<u>Public Authority and Other</u>					
5/8 - 3/4	inch meter	108	9	1.0	9
1	inch meter	24	2	2.5	5
1 1/2	inch meter	-	-	5.0	-
2	inch meter	12	1	8.0	8
3	inch meter	24	2	15.0	30
4	inch meter	-	-	25.0	-
6	inch meter	-	-	50.0	-
8	inch meter	-	-	80.0	-
12	inch meter	-	-	115.0	-
Sub-totals		168	14		52
Total equivalent metered water billings		40,650	3,387		3,482

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

TEST YEAR UNITS OF SERVICE

Base-Extra Capacity Method

Customer Class	Base		Maximum Day			Maximum Hour			Customer	
	Normalized Annual Sales	Average Day	Capacity Factor (3)	Total Capacity	Extra Capacity (4)	Capacity Factor (3)	Total Capacity	Extra Capacity (5)	Equivalent Connections	Bills
	(1)	(2)	%		(2)	%	(2)	(2)		
Residential	154,982.8	424.6	300	1,273.8	849.2	450	1,910.7	636.9	3,359	39,842
Commercial	8,997.8	24.7	315	77.8	53.1	525	129.7	51.9	71	640
Public Authority & Other	13,484.6	36.9	385	142.1	105.2	640	236.2	94.1	52	168
Totals	<u>177,465.2</u>	<u>486.2</u>		<u>1,493.7</u>	<u>1,007.5</u>		<u>2,276.6</u>	<u>782.9</u>	<u>3,482</u>	<u>40,650</u>

(1) 1,000's of gallons

(2) 1,000's of gallons per day

(3) Calculated based on test year usage data.

(4) Capacity in excess of average day usage.

(5) Capacity in excess of maximum day demand.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

ALLOCATION OF UTILITY PLANT TO FUNCTIONAL COST COMPONENTS

Base-Extra Capacity Method

	Total Utility Plant in Service as of 7/31/2018	Base	Extra Capacity		Customer Meters and Services	Percentage Allocations				Ref.
			Maximum Day	Maximum Hour		BAS	MXD	MXH	CUS	
Source of Supply Plant:										
Land and Rights	\$301,178	\$301,178				100.00%				(1)
Wells and Springs	333,422	333,422				100.00%				(1)
Wells - 1996	188,974	188,974				100.00%				(1)
Well Cleaning	14,790	14,790				100.00%				(1)
Pumping Plant										
Structure and Improvements	45,898	45,898				100.00%				(1)
Electric Pump Equipment	143,069	143,069				100.00%				(1)
Water Treatment Plant										
Land and Rights	11,564	11,564				100.00%				(1)
Water Treatment Building	464,542	151,208	\$313,334			32.55%	67.45%			(2)
Water Treatment Equipment	137,151	44,643	92,508			32.55%	67.45%			(2)
Transmission and Distribution										
Land and Rights	387,827	387,827				100.00%				(1)
Structure and Improvements	254,753	54,415	112,728	\$87,610		21.36%	44.25%	34.39%		(4)
Distribution Reservation and Standpipe	2,696,795	269,680		2,427,115		10.00%		90.00%		(3)
Transmission and Distribution Main	10,624,076	2,269,303	4,701,154	3,653,619		21.36%	44.25%	34.39%		(4)
Services	289,961				\$289,961				100%	(6)
Meters	374,283				374,283				100%	(6)
Meter Installation	1,288,483				1,288,483				100%	(6)
General Plant										
Land and Rights	28,561	28,561				100.00%				(1)
Structure and Improvements	68,570	16,190	22,306	23,958	6,116	23.61%	32.53%	34.94%	8.92%	(7)
Office Furniture	148,169	34,983	48,199	51,770	13,217	23.61%	32.53%	34.94%	8.92%	(7)
Transportation	223,865	52,855	72,823	78,218	19,969	23.61%	32.53%	34.94%	8.92%	(7)
Equipment	513,753	121,297	167,124	179,505	45,827	23.61%	32.53%	34.94%	8.92%	(7)
Property for Future Use (Inventory)	89,905	21,226	29,246	31,413	8,020	23.61%	32.53%	34.94%	8.92%	(7)
Intangible Plant										
Organization	521	521				100.00%				(1)
Franchise and Consents	3,046	3,046				100.00%				(1)
Miscellaneous Intangible Plant	4,282,100	914,657	1,894,829	1,472,614		21.36%	44.25%	34.39%		(4)
Net Utility Plant in Service	<u>\$22,915,256</u>	<u>\$5,409,307</u>	<u>\$7,454,251</u>	<u>\$8,005,822</u>	<u>\$2,045,876</u>	<u>23.61%</u>	<u>32.53%</u>	<u>34.94%</u>	<u>8.92%</u>	

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

(Cont'd)

ALLOCATION OF UTILITY PLANT TO FUNCTIONAL COST COMPONENTS

Base-Extra Capacity Method

(1) Allocated 100% to base.

(2) Allocated in ratio to maximum day demand.

	<u>1,000 Gallons</u>	<u>%</u>
Average day demand	486.2	32.55%
Maximum day extra capacity	<u>1,007.5</u>	<u>67.45%</u>
Totals	<u><u>1,493.7</u></u>	<u><u>100.00%</u></u>

(3) Allocated 10% to base and 90% to maximum hour.

(4) Allocated in ratio to maximum day demand.

	<u>1,000 Gallons</u>	<u>%</u>
Average day demand	486.2	21.36%
Maximum day extra capacity	1,007.5	44.25%
Maximum hour extra capacity	<u>782.9</u>	<u>34.39%</u>
Totals	<u><u>2,276.6</u></u>	<u><u>100.00%</u></u>

(5) Allocated 10% to based and 90% to maximum hour.

(6) Allocated 100% to customer meters and services.

(7) Allocated pro rata to all other allocable utility plant.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE EXPENSES
TO FUNCTIONAL COST COMPONENTS
Base-Extra Capacity Method

	Pro Forma Operating Expenses	Base	Extra Capacity		Customer Class		Percentage Allocation					Ref.
			Maximum Day	Maximum Hour	Meters and Services	Billing and Collecting	BAS	MXD	MXH	MET	BILL	
Source of Supply - Operations:												
Salaries and wages	\$5,368	\$5,368					100.00%					(1)
Purchased water	130,153	130,153					100.00%					(1)
Purchased power	21,772	21,772					100.00%					(1)
Materials and supplies	206	206					100.00%					(1)
Source of Supply - Maintenance:												
Repairs and maintenance	6,661	6,661					100.00%					(1)
Rental of equipment	6,100	6,100					100.00%					(1)
Water Treatment Plant - Operations:												
Salaries and wages	34,808	11,772	\$23,036				33.82%	66.18%				(2)
Purchased power	44,772	40,295	4,477				90.00%	10.00%				(3)
Materials and supplies	229	77	152				33.82%	66.18%				(2)
Chemicals	13,297	13,297					100.00%					(1)
Miscellaneous	574	194	380				33.82%	66.18%				(2)
Water Treatment Plant - Maintenance:												
Materials and supplies	4,374	1,479	2,895				33.82%	66.18%				(2)
Repairs and maintenance	12,991	4,394	8,597				33.82%	66.18%				(2)
Contractual services	350	118	232				33.82%	66.18%				(2)
Transmission and Distribution - Operations:												
Salaries and wages	154,014	28,847	46,589	\$59,696	\$18,882		18.73%	30.25%	38.76%	12.26%		(4)
Purchased power	44,365	8,310	13,420	17,196	5,439		18.73%	30.25%	38.76%	12.26%		(4)
Materials and supplies	951	178	288	369	116		18.73%	30.25%	38.76%	12.26%		(4)
Contractual services	27,569	5,164	8,340	10,686	3,379		18.73%	30.25%	38.76%	12.26%		(4)
Transportation	27,390	5,130	8,285	10,616	3,359		18.73%	30.25%	38.76%	12.26%		(4)
Transmission and Distribution - Maintenance:												
Materials and supplies	6,612	1,238	2,000	2,563	811		18.73%	30.25%	38.76%	12.26%		(4)
Repairs and maintenance	96,102	18,000	29,071	37,249	11,782		18.73%	30.25%	38.76%	12.26%		(4)
Contractual Services	88	16	27	34	11		18.73%	30.25%	38.76%	12.26%		(4)
Customer Accounts:												
Salaries and wages	125,423					\$125,423					100.00%	(5)
Materials and supplies	8,604					8,604					100.00%	(5)
Repairs and maintenance	1,983					1,983					100.00%	(5)
Contractual services	16,620					16,620					100.00%	(5)
Bad debt	3,569					3,569					100.00%	(5)
Miscellaneous	10,829					10,829					100.00%	(5)
Administration & General												
Salaries and wages	155,366	22,357	33,839	29,022	9,182	60,966	14.39%	21.78%	18.68%	5.91%	39.24%	(8)
Employee benefits	136,009	19,572	29,623	25,406	8,038	53,370	14.39%	21.78%	18.68%	5.91%	39.24%	(8)
Director's fees	17,400	2,879	4,063	3,731	1,131	5,596	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Materials and supplies	9,141	1,513	2,134	1,960	594	2,940	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Repairs and maintenance	7,385	1,745	2,402	2,580	330	328	23.61%	32.53%	34.94%	4.46%	4.46%	(7)
Contractual services	98,623	16,323	23,028	21,145	6,410	31,717	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Transportation	1,240	204	290	266	81	399	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Insurance	29,980	7,080	9,752	10,474	1,338	1,336	23.61%	32.53%	34.94%	4.46%	4.46%	(7)
Telephone	20,838	3,448	4,866	4,468	1,354	6,702	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Regulatory commision expense	16,266	2,695	3,798	3,487	1,057	5,229	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Payroll taxes	36,336	6,015	8,484	7,790	2,362	11,685	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Miscellaneous	12,518	2,072	2,923	2,684	814	4,025	16.55%	23.35%	21.44%	6.50%	32.16%	(6)
Total operating expenses	1,346,876	394,672	272,991	251,422	76,470	351,321						
Less Test Year Penalties	(15,446)	(4,526)	(3,131)	(2,884)	(877)	(4,028)	29.30%	20.27%	18.67%	5.68%	26.08%	(9)
Less Test Year Interest Income	(7,780)	(2,279)	(1,577)	(1,453)	(442)	(2,029)	29.30%	20.27%	18.67%	5.68%	26.08%	(9)
Less Test Year Reconnect Fees	(18,562)	(5,438)	(3,763)	(3,466)	(1,054)	(4,841)	29.30%	20.27%	18.67%	5.68%	26.08%	(9)
Less Test Year Farm Rent	(12,000)	(3,516)	(2,432)	(2,240)	(682)	(3,130)	29.30%	20.27%	18.67%	5.68%	26.08%	(9)
Net total operating expenses	\$1,293,088	\$378,913	\$262,088	\$241,379	\$73,415	\$337,293						

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

(Cont'd)

ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE EXPENSES
TO FUNCTIONAL COST COMPONENTS

Base-Extra Capacity Method

(1) Allocated 100% to base.

(2) Allocated pro rata based on the allocation of total water treatment plant.

	Water Treatment Plant	%
Average day demand	\$207,415	33.82%
Maximum day extra capacity	405,842	66.18%
Totals	<u>\$613,257</u>	<u>100.00%</u>

(3) Allocated 90% to base and 10% to maximum day extra capacity.

(4) Allocated pro rata based on the allocation of total transmission and distribution plant.

	Transmission and Distribution Plant	%
Average day demand	\$2,981,225	18.73%
Maximum day excess capacity	4,813,882	30.25%
Maximum hour excess capacity	6,168,344	38.76%
Meters and services	1,952,727	12.26%
Totals	<u>\$15,916,178</u>	<u>100.00%</u>

(5) Allocated 100% to billing and collection.

(6) Allocated in ratio to all other functionalized expenses exclusive of utilities and chemicals.

(7) Allocated pro rata based upon utility plant.

(8) Allocated pro rata based upon total payroll.

(9) Allocated pro rata based on total functionalized operating expenses.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

UNIT COSTS OF SERVICE

(Test Year Ended 7/31/2018)

	Net Pro Forma Revenue Requirements	Allocable To All Customers					Ref
		Extra Capacity			Customer Costs		
		Maximum	Maximum	Meters and	Billing and		
		Day	Hour	Services	Collection		
		Base	(-----1,000 Gallons-----)		(Equiv. Meters)	(Bills)	
<u>Units of Service</u>							
Total system		<u>177,465.2</u>	<u>1,007.5</u>	<u>782.9</u>	<u>3,482</u>	<u>40,650</u>	(1)
<u>Pro Forma Cost of Service</u>							
Net operation and maintenance expense	\$1,293,088	\$378,913	\$262,088	\$241,379	\$73,415	\$337,293	(2)
Debt service	534,564	126,210	173,894	186,777	47,683		(3)
Replacements and improvements	<u>390,525</u>	<u>92,203</u>	<u>127,038</u>	<u>136,449</u>	<u>34,835</u>		(3)
Net cost of service	<u>\$2,218,177</u>	<u>\$597,326</u>	<u>\$563,020</u>	<u>\$564,605</u>	<u>\$155,933</u>	<u>\$337,293</u>	
Total unit cost of service		<u>\$3.3659</u>	<u>\$558.8288</u>	<u>\$721.1713</u>	<u>\$44.7826</u>	<u>\$8.2975</u>	

(1) As presented on page 12.

(2) See pages 15 and 16.

(3) Allocated in ratio to plant values, see page 13.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

COST OF SERVICE ALLOCATED TO CUSTOMER CLASS

(Test Year Ended 7/31/17)

Total Costs of Service	Allocable To All Customers				
	Base (-----1,000 Gallons-----)	Extra Capacity		Customer Costs	
		Maximum Day	Maximum Hour	Meters and Services	Billing and Collection
				(Equiv. Meters)	(Bills)
Unit Costs of Service (1)	\$3.3659	\$558.8288	\$721.1713	\$44.7826	\$8.2975
<u>Allocated Costs of Service</u>					
Residential:					
Units of service (2)	154,982.8	849.2	636.9	3,359	39,842
Cost	\$1,936,542	\$521,657	\$474,557	\$150,425	\$330,589
Commercial:					
Units of service (2)	8,997.8	53.1	51.9	71	640
Cost	105,879	\$30,286	\$29,674	\$3,180	\$5,310
Public Authority & Other					
Units of service (2)	13,484.6	105.2	94.1	52	168
Cost	175,756	\$45,383	\$58,789	\$2,328	\$1,394
Total allocated cost of service	\$2,218,177	\$597,326	\$563,020	\$155,933	\$337,293

(1) See page 17.

(2) See page 12.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

CALCULATION OF PROPOSED MONTHLY SERVICE CHARGES

<u>Meter Size</u>		<u>5/8 inch Equivalency Factor</u>	<u>Meter Cost Per Equiv. Unit (1)</u>	<u>Meter Cost Per Unit</u>	<u>Billing Cost Per Unit (2)</u>	<u>Total</u>	<u>Rounded</u>
5/8 - 3/4	inch meter	1.0	\$3.7319	\$3.7319	\$8.2975	\$12.0294	\$12.05
1	inch meter	2.5	3.7319	9.3298	8.2975	17.6273	17.65
1 1/4	inch meter	4.0	3.7319	14.9276	8.2975	23.2251	23.25
1 1/2	inch meter	5.0	3.7319	18.6595	8.2975	26.9570	27.00
2	inch meter	8.0	3.7319	29.8552	8.2975	38.1527	38.20
3	inch meter	15.0	3.7319	55.9785	8.2975	64.2760	64.30
4	inch meter	25.0	3.7319	93.2975	8.2975	101.5950	101.60
6	inch meter	50.0	3.7319	186.5950	8.2975	194.8925	194.90
8	inch meter	80.0	3.7319	298.5520	8.2975	306.8495	306.85
10	inch meter	115.0	3.7319	429.1685	8.2975	437.4660	437.50
12	inch meter	215.0	3.7319	802.3585	8.2975	810.6560	810.70

(1) Calculated as follows:

Annual charge per equivalent meter (page 18)	\$44.7826
Divided by 12 months	<u>12</u>
Monthly charge per equivalent meter	<u><u>\$3.7319</u></u>

(2) Calculated from information shown on page 18.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**PRO FORMA ANNUAL OPERATING REVENUE AT ADJUSTED RATES AND
CHARGES BASED UPON ALLOCATED COST OF SERVICE**

	<u>Billing Determinants</u>		<u>Allocated Cost of Service Rates</u>	<u>Pro Forma Revenue Under Adjusted Rates</u>
	<u>Annual Consumption (1,000 Gallons)</u>	<u>Bills</u>		
Residential:				
Base Charge:				
5/8 - 3/4 inch meter		39,721	\$12.05	\$478,638
1 inch meter		81	17.65	1,430
2 inch meter		28	38.20	1,070
3 inch meter		12	64.30	772
Volume Charge Per 1,000 Gallons:	<u>160,956.7</u>		9.72	<u>1,564,499</u>
Sub-totals	<u>160,956.7</u>	<u>39,842</u>		<u>2,046,409</u>
Commercial:				
Base Charge:				
5/8 - 3/4 inch meter		544	12.05	6,555
1 inch meter		84	17.65	1,483
2 inch meter		12	38.20	458
3 inch meter		-	64.30	-
Volume Charge Per 1,000 Gallons:	<u>8,997.8</u>		9.72	<u>87,459</u>
Sub-totals	<u>8,997.8</u>	<u>640</u>		<u>95,955</u>
Public Authority and Other				
Base Charge:				
5/8 - 3/4 inch meter		108	12.05	1,301
1 inch meter		24	17.65	424
1.5 inch meter		-	27.00	0
2 inch meter		12	38.20	458
3 inch meter		24	64.30	1,543
Volume Charge Per 1,000 Gallons:	<u>7,510.7</u>		9.72	<u>73,004</u>
Sub-totals	<u>7,510.7</u>	<u>168</u>		<u>76,730</u>
Total	<u><u>177,465.2</u></u>	<u><u>40,650</u></u>		<u><u>\$2,219,094</u></u>
Control				<u><u>\$2,218,177</u></u>
Variance				<u><u>\$917</u></u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**COMPARISON OF ALLOCATED COST OF SERVICE WITH
REVENUE UNDER ADJUSTED RATES**

Customer Classification	Cost of Service	Normalized Revenue Under Existing Rates	Increase (Decrease)		Revenue Under Adjusted Rates	Variance Between Adjusted Revenues and Cost of Service	
			%	Amount		%	Amount
Residential	\$1,936,542	\$1,792,073	8.06%	\$144,469	\$2,046,409	5.67%	\$109,867
Commercial	105,879	62,317	69.90%	43,562	95,955	-9.37%	(9,924)
Public Authority & Other	175,756	68,174	157.81%	107,582	76,730	-56.34%	(99,026)
Totals	<u>\$2,218,177</u>	<u>\$1,922,564</u>	<u>15.38%</u>	<u>\$295,613</u>	<u>\$2,219,094</u>	<u>0.04%</u>	<u>\$917</u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

SCHEDULE OF PRESENT AND PROPOSED RATES AND CHARGES

<u>Monthly Metered Rate (rate per 1,000 gallons):</u>		<u>Present</u>	<u>Plus Existing Tracker</u>	<u>Effective Rate</u>	<u>Proposed</u>
First	2,500 gallons	\$10.44	\$0.49	\$10.93	
Next	7,500 gallons	10.03	0.49	10.52	
Next	15,000 gallons	7.61	0.49	8.10	
Next	25,000 gallons	5.19	0.49	5.68	
Over	50,000 gallons	2.80	0.49	3.29	

Flow Rate for All Flow (rate per 1,000 gallons): \$9.72

<u>Minimum Charge:</u>	<u>Gallons Allowed</u>	<u>Present Minimum Charge</u>	<u>Plus Existing Tracker</u>	<u>Effective Minimum Charge</u>
5/8 - 3/4 inch meter	2,500	\$26.10	\$1.23	\$27.33
1 inch meter	5,099	52.17	2.50	54.67
1 1/2 inch meter	15,129	140.36	7.41	147.77
2 inch meter	23,015	200.37	11.28	211.65
3 inch meter	62,680	380.73	30.71	411.44
4 inch meter	76,980	420.77	37.72	458.49
6 inch meter	355,750	1,201.33	174.32	1,375.64

<u>Base Charge:</u>	<u>Proposed Base Charge</u>
5/8 - 3/4 inch meter	\$12.05
1 inch meter	17.65
1 1/2 inch meter	27.00
2 inch meter	38.20
3 inch meter	64.30
4 inch meter	101.60
6 inch meter	194.90

<u>Western Expansion Surcharge:</u>	<u>Present</u>	<u>Proposed</u>
Rate per month	\$9.74	\$0.00

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

SYSTEM DEVELOPMENT CHARGE

MORGAN COUNTY RURAL WATER CORPORATION

CALCULATION OF PROPOSED SYSTEM DEVELOPMENT CHARGE PER EDU

Equity Method:

Utility plant in service (1)	\$22,915,256
Less accumulated depreciation (1)	<u>(6,406,919)</u>
Net utility plant in service	16,508,337
Less outstanding long-term debt (2)	(8,312,562)
Less contributions in aid of construction (3)	<u>(3,108,364)</u>
Sub-total	5,087,411
Divide by estimated number of equivalent dwelling units (EDUs) (4)	<u>3,482</u>
Calculated System Development Charge per EDU	<u>\$1,461</u>
Proposed System Development Charge per EDU	<u><u>\$750</u></u>

(1) See page 25.

(2) See page 26.

(3) Based on the Utility's internal financials.

(4) See page 11.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

CALCULATION OF PROPOSED SYSTEM DEVELOPMENT

CHARGE BY METER SIZE

<u>Meter Size</u>		<u>Equivalency Factor</u>	<u>Charge Per EDU</u>	<u>Proposed Charge by Meter Size</u>
5/8 - 3/4	inch meter	1.0	\$750.00	\$750.00
1	inch meter	2.5	750.00	1,875.00
1.5	inch meter	5.0	750.00	3,750.00
2	inch meter	8.0	750.00	6,000.00
3	inch meter	15.0	750.00	11,250.00

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

SUPPLEMENTAL FINANCIAL DATA

MORGAN COUNTY RURAL WATER CORPORATION

COMPARATIVE STATEMENT OF NET POSITION
(Unaudited)

ASSETS:	<u>12/31/2015</u>	<u>As of 12/31/2016</u>	<u>12/31/2017</u>	<u>As of 7/31/2018</u>
Current Assets:				
Operating - cash and cash equivalents	\$50,095	\$153,365	\$175,652	\$133,127
Improvement - cash and cash equivalents	314,160	372,615	539,104	599,997
Tank maintenance - cash and cash equivalents	116,259	142,676	169,156	184,633
Restricted cash and cash equivalents:				
Debt service reserve	603,696	610,217	616,500	619,868
Accounts receivable	173,849	169,103	166,946	193,471
	<u>1,258,059</u>	<u>1,447,976</u>	<u>1,667,358</u>	<u>1,731,096</u>
Total Current Assets				
Non-Current Assets:				
Debt service reserve - investments	29,407	23,640	18,880	15,027
	<u>29,407</u>	<u>23,640</u>	<u>18,880</u>	<u>15,027</u>
Capital Assets:				
Utility plant in service	22,316,416	22,527,273	22,804,011	22,915,256
Less accumulated depreciation	(5,296,149)	(5,735,929)	(6,160,031)	(6,406,919)
	<u>17,020,267</u>	<u>16,791,344</u>	<u>16,643,980</u>	<u>16,508,337</u>
Net Capital Assets				
	<u>17,020,267</u>	<u>16,791,344</u>	<u>16,643,980</u>	<u>16,508,337</u>
Total Noncurrent Assets	<u>17,049,674</u>	<u>16,814,984</u>	<u>16,662,860</u>	<u>16,523,364</u>
Total Assets	<u>\$18,307,733</u>	<u>\$18,262,960</u>	<u>\$18,330,218</u>	<u>\$18,254,460</u>

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

COMPARATIVE STATEMENT OF NET POSITION
(Unaudited)

LIABILITIES AND EQUITY:	12/31/2015	As of 12/31/2016	12/31/2017	As of 7/31/2018
Current Liabilities:				
Accounts payable	\$30,240	\$53,526	\$35,396	\$40,879
Sales tax payable	10,020	9,863	10,117	12,009
Salaries and wages payable	6,638	8,391	13,273	32,052
Payroll taxes payable	3,037	3,098	2,663	2,177
Interest payable	19,456	18,716	18,716	18,716
Total Current Liabilities	<u>69,391</u>	<u>93,594</u>	<u>80,165</u>	<u>105,833</u>
Noncurrent Liabilities:				
Notes payable - CoBank loan	5,999	-	-	-
Notes payable - RD loans	3,377,188	3,305,251	3,232,230	3,200,828
Notes payable - RD SIP loan	5,330,244	5,248,605	5,163,401	5,111,562
Total Non-Current Liabilities	<u>8,713,431</u>	<u>8,553,856</u>	<u>8,395,631</u>	<u>8,312,390</u>
Total Liabilities	<u><u>\$8,782,822</u></u>	<u><u>\$8,647,450</u></u>	<u><u>\$8,475,796</u></u>	<u><u>\$8,418,223</u></u>
NET POSITION:				
Invested in Capital Assets, Net of Related Debt	\$8,306,836	\$8,237,488	\$8,248,349	\$8,195,947
Restricted	633,103	633,857	635,380	634,895
Unrestricted	584,972	744,165	970,693	1,005,395
Total Net Position	<u><u>\$9,524,911</u></u>	<u><u>\$9,615,510</u></u>	<u><u>\$9,854,422</u></u>	<u><u>\$9,836,237</u></u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN NET POSITION**
(Unaudited)

	Calendar Year Ended			Test Year Ended
	12/31/2015	12/31/2016	12/31/2017	7/31/2018
Operating Revenues:				
Metered sales	\$1,808,805	\$1,836,586	\$1,887,859	\$1,922,564
Surcharge	56,005	57,710	59,502	60,574
Penalties	18,105	18,311	17,802	15,446
Total Operating Revenues	1,882,915	1,912,607	1,965,163	1,998,584
Operating Expenses:				
Source of supply - operations	118,005	146,333	151,888	160,331
Source of supply - maintenance	13,299	12,913	3,669	10,571
Water treatment plant - operations	123,525	123,559	110,987	113,385
Water treatment plant - maintenance	9,190	14,648	20,980	27,244
Transmission and distribution - operations	202,859	198,726	210,397	250,400
Transmission and distribution - maintenance	71,886	66,941	59,130	49,150
Customer accounts	141,827	145,613	140,133	173,423
Administrative and general	400,186	398,472	435,017	482,335
Sub-Totals	1,080,777	1,107,205	1,132,201	1,266,839
Depreciation expense	338,778	357,176	320,622	320,485
Total Operating Expenses	1,419,555	1,464,381	1,452,823	1,587,324
Operating Revenues	\$463,360	\$448,226	\$512,340	\$411,260

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

(Cont'd)

COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND
CHANGES IN NET POSITION
(Unaudited)

	<u>Calendar Year Ended</u>			<u>Test Year</u>
	<u>12/31/2015</u>	<u>12/31/2016</u>	<u>12/31/2017</u>	<u>Ended</u>
				<u>7/31/2018</u>
Nonoperating Revenues:				
Reconnect fees	\$18,310	\$17,841	\$19,831	\$18,562
Interest income	8,956	7,803	7,662	7,780
Farm rent	17,610	12,000	12,000	12,000
Patronage refunds	3,550	406	-	-
Return check fees	-	530	540	495
Sale of assets	4,000	500	-	-
Miscellaneous income - nonutility	-	1,018	1,109	1,109
Other revenue	375	337	122	5,252
	<u>52,801</u>	<u>40,435</u>	<u>41,264</u>	<u>45,198</u>
Total Nonoperating Revenues				
Nonoperating Expenses:				
Interest expense - CoBank loan	3,523	85	-	-
Interest expense - RD loans	162,133	157,310	156,557	156,557
Interest expense - RD SIP loan	221,362	218,055	214,897	212,836
Amortization expense	103,394	103,481	103,481	103,497
	<u>490,412</u>	<u>478,931</u>	<u>474,935</u>	<u>472,890</u>
Total Nonoperating Expenses				
Income (Loss) Before Contributions and Transfers	<u>25,749</u>	<u>9,730</u>	<u>78,669</u>	<u>(16,432)</u>
Contributed Capital and Transfers:				
Contributed capital	<u>73,186</u>	<u>80,869</u>	<u>161,550</u>	<u>148,932</u>
Change In Net Position	98,935	90,599	240,219	132,500
Net Position - Beginning	9,425,976	9,524,911	9,615,510	9,720,512
Net Position - Adjustment (1)	-	-	15,468	-
Net Position - Adjustment (2)	<u>-</u>	<u>-</u>	<u>(16,775)</u>	<u>(16,775)</u>
Net Position - Ending	<u><u>\$9,524,911</u></u>	<u><u>\$9,615,510</u></u>	<u><u>\$9,854,422</u></u>	<u><u>\$9,836,237</u></u>

(1) Adjustment related to the recording of open deposits and checks affected by new accounting system.

(2) Audit adjustment to record 2016 income and to adjust item "(1)" above.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION
COMPARATIVE SCHEDULE OF OPERATING EXPENSES
(Unaudited)

	Calendar Year Ended			Test Year Ended
	12/31/2015	12/31/2016	12/31/2017	7/31/2018
Operating Expenses:				
Source of Supply - Operations:				
Salaries and wages	\$6,565	\$6,694	\$7,670	\$8,200
Purchased water	95,094	120,018	123,221	130,153
Purchased power	14,838	19,570	20,791	21,772
Materials and supplies	615	51	206	206
Transportation	893	-	-	-
Total Source of Supply - Operations	118,005	146,333	151,888	160,331
Source of Supply - Maintenance:				
Repairs and maintenance	13,299	12,913	1,731	4,471
Rental of equipment	-	-	1,938	6,100
Total Source of Supply - Maintenance	13,299	12,913	3,669	10,571
Water Treatment Plant - Operations:				
Salaries and wages	65,419	66,693	53,708	54,513
Purchased power	46,682	43,390	41,589	44,772
Materials and supplies	-	-	326	229
Chemicals	11,124	13,113	14,924	13,297
Miscellaneous	300	363	440	574
Total Water Treatment Plant - Operations	123,525	123,559	110,987	113,385
Water Treatment Plant - Maintenance:				
Materials and supplies	-	-	9,350	4,374
Repairs and maintenance	9,190	14,648	11,630	19,570
Contractual services	-	-	-	3,300
Miscellaneous	-	-	-	-
Total Water Treatment Plant - Maintenance	9,190	14,648	20,980	27,244
Transmission and Distribution - Operations:				
Salaries and wages	131,704	132,826	136,935	150,125
Purchased power	44,296	42,775	42,166	44,365
Materials and supplies	-	-	442	951
Contractual services	-	-	7,430	27,569
Transportation	26,859	23,125	23,424	27,390
Total Transmission and Distribution - Operations	202,859	198,726	210,397	250,400
Transmission and Distribution - Maintenance:				
Materials and supplies	-	-	7,203	6,612
Repairs and maintenance	69,344	66,549	31,058	25,611
Contractual services	-	-	20,869	16,927
Miscellaneous	2,542	392	-	-
Total Transmission and Distribution - Operations	71,886	66,941	59,130	49,150
Sub-Totals	\$538,764	\$563,120	\$557,051	\$611,081

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION
COMPARATIVE SCHEDULE OF OPERATING EXPENSES
(Unaudited)

(Cont'd)

	Calendar Year Ended			Test Year Ended
Operating Expenses (Cont'd):	12/31/2015	12/31/2016	12/31/2017	7/31/2018
Customer Accounts:				
Salaries and wages	\$107,746	\$116,490	\$119,541	\$131,818
Materials and supplies	23,049	21,225	13,727	8,604
Repairs and maintenance	-	-	1,901	1,983
Contractual services	-	-	-	16,620
Bad debt	457	1,039	2,472	3,569
Miscellaneous	10,575	6,859	2,492	10,829
Total Customer Accounts	141,827	145,613	140,133	173,423
Administrative and General:				
Salaries and wages	84,967	79,016	111,139	122,512
Employee benefits	97,341	96,924	108,837	121,915
Director's fees	15,750	17,850	17,700	17,250
Materials and supplies	12,965	11,393	18,246	9,141
Repairs and maintenance	-	-	3,871	7,385
Contractual services	60,903	69,396	55,898	88,823
Transportation	2,177	1,463	1,035	1,240
Insurance	39,206	41,706	35,857	31,926
Telephone	12,125	12,900	13,928	20,838
Regulatory commission expense	15,468	13,644	16,285	16,266
Payroll taxes	30,390	28,982	30,368	32,521
Miscellaneous	28,894	25,198	21,853	12,518
Total Administrative and General	400,186	398,472	435,017	482,335
Sub-Totals	542,013	544,085	575,150	655,758
Total Operating Expenses	\$1,080,777	\$1,107,205	\$1,132,201	\$1,266,839

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

COMPARATIVE STATEMENT OF CASH FLOWS

Increase (Decrease) in cash and cash equivalents

(Unaudited)

	<u>Calendar Year Ended</u>			<u>Test Year Ended 7/31/2018</u>
	<u>12/31/2015</u>	<u>12/31/2016</u>	<u>12/31/2017</u>	
Cash flows from Operating Activities:				
Cash received from customers	\$1,878,732	\$1,917,353	\$1,967,320	\$1,990,479
Cash paid to suppliers, employees and others	<u>(1,095,914)</u>	<u>(1,083,002)</u>	<u>(1,146,937)</u>	<u>(1,291,921)</u>
Net Cash from Operating Activities	<u>782,818</u>	<u>834,351</u>	<u>820,383</u>	<u>698,558</u>
Cash Flows from Non-Capital and Related Financing Activities:				
Contributed capital	<u>73,186</u>	<u>80,869</u>	<u>161,550</u>	<u>148,932</u>
Cash Flows from Capital and Related Financing Activities:				
Additions to utility plant	(464,324)	(128,253)	(173,258)	(154,389)
Principal paid on bonds	(214,394)	(159,575)	(158,225)	(160,286)
Interest paid on bonds	(387,018)	(375,450)	(371,454)	(369,393)
Amortization expense	(103,394)	(103,481)	(103,481)	(103,497)
Proceeds from reconnect fees	18,310	17,841	19,831	18,562
Proceeds from farm rent	17,610	12,000	12,000	12,000
Proceeds (loss) from sale of assets	4,000	500	-	-
Proceeds from other nonoperating revenues	<u>3,925</u>	<u>2,291</u>	<u>1,771</u>	<u>6,856</u>
Net Cash from Capital Financing Activities	<u>(1,125,285)</u>	<u>(734,127)</u>	<u>(772,816)</u>	<u>(750,147)</u>
Cash Flows from Investing Activities:				
Interest income	8,956	7,803	7,662	7,780
Investments sold (purchased)	<u>6,475</u>	<u>5,767</u>	<u>4,760</u>	<u>3,853</u>
Net Cash from Investing Activities	<u>15,431</u>	<u>13,570</u>	<u>12,422</u>	<u>11,633</u>
Cash and Cash Equivalents:				
Increase (Decrease)	(253,850)	194,663	221,539	108,976
Beginning Balance	<u>1,338,060</u>	<u>1,084,210</u>	<u>1,278,873</u>	<u>1,428,649</u>
Ending Balance	<u><u>\$1,084,210</u></u>	<u><u>\$1,278,873</u></u>	<u><u>\$1,500,412</u></u>	<u><u>\$1,537,625</u></u>

(Continued on next page)

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

(Cont'd)

COMPARATIVE STATEMENT OF CASH FLOWS

**Increase (Decrease) in cash and cash equivalents
(Unaudited)**

	Calendar Year Ended			Test Year
	12/31/2015	12/31/2016	12/31/2017	Ended 7/31/2018
Reconciliation of net operating revenues to cash provided from operations:				
Net Operating Revenues	\$463,360	\$448,226	\$512,340	\$411,260
Adjustments to reconcile net income to net cash provided from operating activities:				
Depreciation Expense	338,778	357,176	320,622	320,485
Change in assets and liabilities:				
Decrease (Increase) in				
Accounts receivable	(4,183)	4,746	2,157	(8,105)
Increase (Decrease) in				
Accounts payable	1,258	23,286	(18,130)	(20,342)
Taxes payable	(188)	(157)	254	719
Salaries and wages payable	(13,509)	1,753	4,882	11,097
Payroll taxes payable	(1,905)	61	(435)	219
Interest payable	(793)	(740)	-	-
Adjustment to net position	-	-	(1,307)	(16,775)
Net Cash Provided from Operations	<u>\$782,818</u>	<u>\$834,351</u>	<u>\$820,383</u>	<u>\$698,558</u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**COMPARISON OF ACCOUNT BALANCES WITH MINIMUM
BALANCES REQUIRED OR RECOMMENDED**

<u>Cash and Investments:</u>	Account Balances 7/31/2018	Minimum Balance Required (1)	Variance
Operating Fund (2)	\$133,127	\$224,524	(\$91,397)
Debt Service Reserve:			
Rural Development (3a)	555,997	529,680	26,317
Co-Bank (3b)	63,871	-	63,871
Improvement Fund (4)	599,997	334,265	265,732
Tank Maintenance Fund (5)	184,633	184,633	-
Totals	<u>\$1,537,625</u>	<u>\$1,273,102</u>	<u>\$264,523</u>

(1) **Required Reserves:** Balances recommended or required by Rural Development.

(2) **Operating and Maintenance Fund:** The balance maintained in the operation and maintenance account should be sufficient to pay the expenses of operation, repair, and maintenance of the utility for the next succeeding two (2) calendar months.

Pro Forma operation and maintenance expense	\$1,346,876
Times factor for 2 months	<u>16.67%</u>
Required Reserve	<u>\$224,524</u>

(3a) **Debt Service Reserve - Rural Development:** The balance should be maintained at an amount equal to the annual debt service requirement when fully funded.

Annual debt service on RD loans	<u>\$529,680</u>
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(3b) **Debt Service Reserve - CoBank:** No reserve is now required; the loan has matured.

\$	<u>-</u>
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(4) **Improvement Fund:** No minimum balance required. However, as a general rule an amount equal to one year's depreciation expense is typically maintained in this account to provide a funding source for ongoing capital improvements.

Minimum balance recommended	<u>\$334,265</u>
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(5) **Tank Maintenance Fund:** Monies are restricted for tank maintenance.

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**SCHEDULE OF AMORTIZATION OF \$3,226,003.58 PRINCIPAL AMOUNT OF
OUTSTANDING WATERWORKS RURAL DEVELOPMENT LOAN**

Principal and interest payable monthly.

Interest rate as shown.

Year	Principal Balance	Interest Rate (%)	Debt Service		
			Principal	Interest	Total
2018	\$3,226,003.58	4.75	\$78,094.46	\$151,549.54	\$229,644.00
2019	3,147,909.12	4.75	81,885.78	147,758.22	229,644.00
2020	3,066,023.34	4.75	85,861.16	143,782.84	229,644.00
2021	2,980,162.18	4.75	90,029.53	139,614.47	229,644.00
2022	2,890,132.65	4.75	94,400.28	135,243.72	229,644.00
2023	2,795,732.37	4.75	98,983.22	130,660.78	229,644.00
2024	2,696,749.15	4.75	103,788.64	125,855.36	229,644.00
2025	2,592,960.51	4.75	108,827.36	120,816.64	229,644.00
2026	2,484,133.15	4.75	114,110.69	115,533.31	229,644.00
2027	2,370,022.46	4.75	119,650.54	109,993.46	229,644.00
2028	2,250,371.92	4.75	125,459.32	104,184.68	229,644.00
2029	2,124,912.60	4.75	131,550.09	98,093.91	229,644.00
2030	1,993,362.51	4.75	137,936.57	91,707.43	229,644.00
2031	1,855,425.94	4.75	144,633.11	85,010.89	229,644.00
2032	1,710,792.83	4.75	151,654.73	77,989.27	229,644.00
2033	1,559,138.10	4.75	159,017.25	70,626.75	229,644.00
2034	1,400,120.85	4.75	166,737.18	62,906.82	229,644.00
2035	1,233,383.67	4.75	174,831.94	54,812.06	229,644.00
2036	1,058,551.73	4.75	183,319.65	46,324.35	229,644.00
2037	875,232.08	4.75	192,219.46	37,424.54	229,644.00
2038	683,012.62	4.75	201,551.28	28,092.72	229,644.00
2039	481,461.34	4.75	211,336.18	18,307.82	229,644.00
2040	270,125.16	4.75	221,596.08	8,047.92	229,644.00
2041	48,529.08	4.75	48,529.08	351.01	48,880.09
Totals			<u>\$3,226,003.58</u>	<u>\$2,104,688.51</u>	<u>\$5,330,692.09</u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

**SCHEDULE OF AMORTIZATION OF \$5,193,579.64 PRINCIPAL AMOUNT OF
OUTSTANDING WATERWORKS RURAL DEVELOPMENT LOAN OF 2008**

Principal and interest payable monthly.

Interest rate as shown.

Year	Principal Balance	Interest Rate (%)	Debt Service		
			Principal	Interest	Total
2018	\$5,193,579.64	4.125	\$90,685.07	\$214,235.17	\$304,920.24
2019	5,102,894.57	4.125	94,425.83	210,494.41	304,920.24
2020	5,008,468.74	4.125	98,320.90	206,599.34	304,920.24
2021	4,910,147.84	4.125	102,376.64	202,543.60	304,920.24
2022	4,807,771.20	4.125	106,599.67	198,320.57	304,920.24
2023	4,701,171.53	4.125	110,996.91	193,923.33	304,920.24
2024	4,590,174.62	4.125	115,575.53	189,344.71	304,920.24
2025	4,474,599.09	4.125	120,343.02	184,577.22	304,920.24
2026	4,354,256.07	4.125	125,307.17	179,613.07	304,920.24
2027	4,228,948.90	4.125	130,476.09	174,444.15	304,920.24
2028	4,098,472.81	4.125	135,858.23	169,062.01	304,920.24
2029	3,962,614.58	4.125	141,462.38	163,457.86	304,920.24
2030	3,821,152.20	4.125	147,297.71	157,622.53	304,920.24
2031	3,673,854.49	4.125	153,373.74	151,546.50	304,920.24
2032	3,520,480.75	4.125	159,700.41	145,219.83	304,920.24
2033	3,360,780.34	4.125	166,288.05	138,632.19	304,920.24
2034	3,194,492.29	4.125	173,147.43	131,772.81	304,920.24
2035	3,021,344.86	4.125	180,289.76	124,630.48	304,920.24
2036	2,841,055.10	4.125	187,726.71	117,193.53	304,920.24
2037	2,653,328.39	4.125	195,470.44	109,449.80	304,920.24
2038	2,457,857.95	4.125	203,533.60	101,386.64	304,920.24
2039	2,254,324.35	4.125	211,929.36	92,990.88	304,920.24
2040	2,042,394.99	4.125	220,671.44	84,248.80	304,920.24
2041	1,821,723.55	4.125	229,774.14	75,146.10	304,920.24
2042	1,591,949.41	4.125	239,252.32	65,667.92	304,920.24
2043	1,352,697.09	4.125	249,121.48	55,798.76	304,920.24
2044	1,103,575.61	4.125	259,397.71	45,522.50	304,920.21
2045	844,177.90	4.125	270,097.90	34,822.34	304,920.24
2046	574,080.00	4.125	281,239.44	23,680.80	304,920.24
2047	292,840.56	4.125	292,840.56	12,079.68	304,920.24
Totals			<u>\$5,193,579.64</u>	<u>\$3,954,027.53</u>	<u>\$9,147,607.17</u>

(See Accountants' Report)

MORGAN COUNTY RURAL WATER CORPORATION

SCHEDULE OF COMBINED NOTE AMORTIZATION

<u>Year</u>	<u>2001 RD Loan</u> <u>(Unaudited)</u>	<u>2008 RD Loan</u> <u>(Unaudited)</u>	<u>Note</u> <u>Year Total</u>
2018	\$229,644.00	\$304,920.24	\$534,564.24
2019	229,644.00	304,920.24	534,564.24
2020	229,644.00	304,920.24	534,564.24
2021	229,644.00	304,920.24	534,564.24
2022	229,644.00	304,920.24	534,564.24
2023	229,644.00	304,920.24	534,564.24
2024	229,644.00	304,920.24	534,564.24
2025	229,644.00	304,920.24	534,564.24
2026	229,644.00	304,920.24	534,564.24
2027	229,644.00	304,920.24	534,564.24
2028	229,644.00	304,920.24	534,564.24
2029	229,644.00	304,920.24	534,564.24
2030	229,644.00	304,920.24	534,564.24
2031	229,644.00	304,920.24	534,564.24
2032	229,644.00	304,920.24	534,564.24
2033	229,644.00	304,920.24	534,564.24
2034	229,644.00	304,920.24	534,564.24
2035	229,644.00	304,920.24	534,564.24
2036	229,644.00	304,920.24	534,564.24
2037	229,644.00	304,920.24	534,564.24
2038	229,644.00	304,920.24	534,564.24
2039	229,644.00	304,920.24	534,564.24
2040	229,644.00	304,920.24	534,564.24
2041	48,880.09	304,920.24	353,800.33
2042		304,920.24	304,920.24
2043		304,920.24	304,920.24
2044		304,920.21	304,920.21
2045		304,920.24	304,920.24
2046		304,920.24	304,920.24
2047		304,920.24	304,920.24
Totals:	<u>\$5,330,692.09</u>	<u>\$9,147,607.17</u>	<u>\$14,478,299.26</u>
Average annual debt service for the five note years ending December 31, 2026			<u>\$534,564.24</u>

(See Accountants' Report)