

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF)
THE TOWN OF CHANDLER, INDIANA,)
FOR APPROVAL OF A NEW SCHEDULE)
OF RATES AND CHARGES FOR WATER)
UTILITY SERVICE AND FOR)
AUTHORITY TO ISSUE REVENUE) CAUSE NO. 45062
BONDS TO PROVIDE FUNDS FOR THE)
COSTS OF THE ACQUISITION AND)
INSTALLATION OF IMPROVEMENTS)
AND EXTENSIONS TO THE)
WATERWORKS OF THE TOWN)

PETITIONER'S EXHIBIT NO. 3

Prepared Direct 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.**

2 A. My name is Scott A. Miller and my business address is 8365 Keystone Crossing, Suite
3 300, Indianapolis, Indiana 46240-0458.

4
5 **Q. What is your profession and for whom are you employed?**

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

8
9 **Q. Can you describe your firm and its area of expertise?**

10 A. Umbaugh is a firm of Certified Public Accountants practicing exclusively as
11 independent municipal advisors and utility consultants. The firm, in existence for over
12 sixty-five (65) years, is a regional CPA firm with offices in Indianapolis and Mishawaka,
13 Indiana; Okemos, Michigan; and Columbus, Ohio. Our firm has concentrated its practice
14 in providing financial and municipal advisory services to various governmental entities
15 and not-for-profit utilities throughout the Midwest. A large part of our practice involves
16 accounting studies in connection with changes in utility rates and the financial planning
17 associated with the acquisition of capital such as tax-exempt and taxable bonds and
18 notes and other evidences of indebtedness.

19
20 **Q. What is your educational experience?**

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

9

10 **Q. Please describe your relevant professional experience.**

11 A. I joined the firm of Umbaugh in June 1995 and, in 1998, completed the requirements to
12 become licensed as a Certified Public Accountant in the State of Indiana. In July 2000, I
13 assumed the position of client manager within the firm. On July 1, 2005, I became a
14 principal in the firm. On January 1, 2009, I was admitted into the Firm's partnership.
15 Currently, I serve on the Firm's Management Committee and am responsible for
16 overseeing the operations of the Firm's Accounting Services Group. During the past
17 twenty-two years with Umbaugh, I have been involved with many professional
18 engagements including financial studies for municipally-owned water, electric, gas,
19 steam and sewage utilities, for-profit and not-for-profit water and sewer corporations,
20 water authorities, regional water and sewer districts and conservancy districts. These
21 studies quite often have involved the determination of utility revenue requirements, cost
22 of service studies, rate design and the financial planning associated with the issuance of
23 tax-exempt and taxable bonds and notes to fund projects using a variety of financing

1 mechanisms including Rural Development ("RD"), the State Revolving Fund ("SRF"),
2 tax-exempt and taxable bonds issued on the open market and other sources. I have given
3 speeches and participated in panels and workshops concerning utility rates, financing
4 and project development before the Indiana Rural Water Association, the Alliance of
5 Indiana Rural Water, the Indiana Section of the American Water Works Association, the
6 Indiana Association of Sewer Companies, the Indiana Water Environment Association,
7 and Accelerate Indiana Municipalities (formerly the Indiana Association of Cities and
8 Towns).

9
10 **Q. With what professional organizations are you associated?**

11 A. I am personally a member of the American Institute of Certified Public Accountants, the
12 Indiana CPA Society, the Indiana Water Environment Association, and the American
13 Water Works Association ("AWWA") and our firm is a member of numerous industry
14 associations including the Indiana Rural Water Association, the Alliance of Indiana
15 Rural Water as well as the Indiana Municipal Electric Association. Our firm is also a
16 strategic partner of Accelerate Indiana Municipalities ("AIM"). In the latter capacity, we
17 provide guidance on financial matters that affect communities across the state. Finally, I
18 currently serve as the Vice-Chairman of the Indiana Section AWWA Water Utility
19 Council.

20
21 **Q. Have you testified before as an expert witness?**

22 A. Yes, I have testified before the Indiana Utility Regulatory Commission on many
23 previous occasions. This testimony has covered the development of appropriate

1 revenue requirements, utility valuation, financing approval and across-the-board and
2 cost of service analysis and rate design.

3

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

5 A. Yes, I have.

6

7 **Q. For what purpose have you been retained?**

8 A. We were retained by the Waterworks Utility of the Town of Chandler, Indiana
9 ("Petitioner") to complete an accounting study to determine the rates necessary to
10 support the pro forma revenue requirements and make recommendations regarding
11 changes in Petitioner's present schedule of rates and charges for service, as well as assist
12 with the structuring of the long-term revenue bonds to be used to fund the proposed
13 improvement project.

14

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

16 A. Yes. Our firm prepared Petitioner's Attachment SAM-1, an Accounting Report on Cost
17 of Service Rate Study dated February 19, 2018 summarizing the results of our studies
18 and the accounting services performed for Petitioner.

19

20 **Q. Was the Accounting Report prepared by you or under your supervision?**

21 A. Yes.

22

23 **Q. What were the sources of data used to prepare Petitioner's Attachment SAM-1?**

1 A. The information within the exhibits and schedules contained within Attachment SAM-1
2 came from the unaudited accounting and business records of the Petitioner, the officers
3 and employees of the Petitioner with knowledge of the facts based on their job
4 responsibilities and activities, and other sources which I examined in the course of my
5 investigation.

6
7 **Q. Is this the type of data normally relied on and used in your business for such**
8 **purposes?**

9 A. Yes.

10

11 **Q. Would you please explain Petitioner's Attachment SAM-1 to the extent not otherwise**
12 **self-explanatory?**

13 A. The report is divided into six sections. The first section of the report is the accountant's
14 letter, which describes that the type of accounting service provided was a compilation
15 and that the resulting accounting report is a special purpose report for submission to the
16 Indiana Utility Regulatory Commission and is restricted to that purpose only. This letter
17 is incorporated by reference on all of the pages of the accounting report.

18

19 The second section of the report (pages 3 through 17) contains pro forma financial
20 information, including a schedule of estimated project costs and funding, the
21 accompanying bond amortization schedule to retire the proposed bond issue, and a
22 combined bond amortization schedule. Pages 8 through 12 set forth the various
23 calculations of the Petitioner's pro forma cash operating disbursements. The next two

1 pages present a normalization of annual operating receipts for the twelve months ended
2 August 31, 2017, which was the test year used to develop the proposed rates and
3 charges. Page 15 presents a calculation of average annual additions to utility plant and
4 pro forma depreciation expense. Pages 16 through 17 summarize the pro forma annual
5 revenue requirements and annual operating receipts included in this cause.

6
7 The third section of the report (pages 18 through 36) presents the cost of service study
8 and resulting rates and charges.

9
10 The fourth section of the report (pages 37 through 40) contains the calculations of the
11 proposed public fire protection charges. The fifth section of the report (pages 41 and 42)
12 present an updated calculation of Petitioner's existing system development charge
13 ("SDC"). Finally, the sixth section (pages 43 through 48) contains supplemental data,
14 including comparative cash basis financial statements and account balances along with
15 amortization schedules of outstanding waterworks bonds.

16
17 **Q. What test period was used in the preparation of your Accounting Report?**

18 A. The test period consists of the twelve months ended August 31, 2017. In my opinion,
19 when the results of this test period are combined with appropriate pro forma
20 adjustments, receipts and disbursements are fairly representative for current and future
21 operations of the water system.

22
23 **Q. Did the results of your analysis indicate that a rate increase is necessary?**

1 A. Yes. Consistent with the statutory elements that govern the establishment of rates for
2 municipalities in the State of Indiana, Umbaugh's analysis indicates that an overall
3 increase of approximately 49.9% is justified. In addition, our analysis indicates that an
4 increase in the SDC is also warranted. Resolution 2018-02 attached as Petitioner's
5 Attachment RDC-1 to the testimony of Robert D. Coghill is the action of Petitioner's
6 Town Council on our recommendation.

7
8 **Q. What is the driving need for this rate increase?**

9 A. The primary drivers are as follows: (1) mounting cash deficits that need to be halted; (2)
10 the need for a \$29,294,000 bond issue for various capital projects; and (3) the need to
11 rebuild cash reserves.

12
13 **Q. Are any of the projects within the \$29,294,000 bond issue time sensitive?**

14 A. Yes. The Bell Road Relocation Project is spearheaded and driven by Warrick County,
15 Indiana ("Warrick County"), and financed by the Indiana Department of Transportation
16 ("INDOT"). Warrick County anticipates the road reconstruction project to commence in
17 early 2019, which makes this project a priority for the water utility.

18
19 **Pro Forma Financial Information**

20
21 **Q. How did you determine the estimated project costs?**

22 A. The estimated project costs are based on engineering estimates, as further elaborated
23 upon in the direct testimony of J. Christopher Kaufman Jr. in Petitioner's Exhibit No. 2,

1 and are split into three different projects. The first, the Bell Road Relocation Project, will
2 likely commence in early 2019 and involves the relocation of the existing water main
3 prior to a road reconstruction project. The second, the Downtown Replacement Project,
4 involves replacing distribution mains to address breaks and failures. The third, the
5 Transmission Line Project, involves adding a new 24-inch transmission line to provide
6 redundancy to the existing system and add capacity for future growth of the
7 surrounding areas. These projects, including all financing and other soft costs, are
8 estimated to cost approximately \$29,294,000. At present, the proposed projects are
9 intended to be funded with a bond issue through the Indiana Drinking Water State
10 Revolving Fund ("SRF").

11
12 **Q. Is Petitioner reviewing the possibility of obtaining any grant funding for the**
13 **proposed projects?**

14 A. Yes. The Town has engaged the services of Ms. Carol Hagedorn with the Economic
15 Development Coalition of Southwest Indiana to investigate the possibility of obtaining
16 any available grants from Warrick County, the State of Indiana, or other sources. Ms.
17 Hagedorn is certified in Community Development through the Indiana Office for
18 Community and Rural Affairs. She also has a Certified Economic Development
19 designation from the International Economic Development Council. Ms. Hagedorn is
20 analyzing in particular all grant opportunities through the Indiana Office of Community
21 and Rural Affairs ("OCRA"). If Petitioner is ultimately awarded any grant funding for
22 the proposed improvements, the amount of the bond issue will be reduced to reflect the
23 additional funding sources. SRF funds are distributed on a drawdown basis.

1 Consequently, the Utility will only repay the amount of principal actually drawn from
2 the fund. For this reason, the utility is requesting approval now to issue up to the full
3 project cost of \$29,294,000.

4
5 **Q. Please summarize the bond amortization schedules in the Accounting Report.**

6 A. The amortization of the proposed 2018 bonds begins on page 4 of the report. Recently,
7 the SRF has received approval from U.S. EPA to allow for thirty-five year amortization
8 periods for project components that consist of transmission and distribution lines that
9 have an expected useful life of at least that number of years. Since Petitioner's proposed
10 project is exclusively for construction of water lines, principal of the proposed bonds is
11 shown to be paid semiannually over a thirty-five (35) year period beginning March 1,
12 2019. Interest is shown to be paid semiannually beginning March 1, 2019, at an assumed
13 interest rate of 2.75 percent. The average principal and interest payment for the first
14 twelve years on the proposed bond issue is calculated on page 5, while the combined
15 principal and interest payment for the outstanding and proposed bonds is shown on
16 page 7. Principal repayment on the proposed 2018 bond issue has been structured in
17 such a way to maintain level debt service when taking into account both the proposed
18 and outstanding bond issues. Level debt service results in the lowest annual revenue
19 requirements needed when designing rates.

20
21 **Q. How did you arrive at the estimated interest rate shown on the proposed amortization**
22 **schedules?**

1 A. SRF uses a tiered system that takes into account the median household family income of
2 the customer base as well as the system's user rates when setting program interest rates.
3 In addition, SRF adds a ten basis point "kicker" to the interest rate for each five year
4 increase in term beyond a standard twenty year amortization. These interest rates
5 change on a quarterly basis depending on the fluctuations in the municipal bond open
6 market. As such, the final interest rate will not be known until closing with the SRF
7 occurs. Using a median household income of \$47,500 and an expected user rate for 4,000
8 gallons between \$30 and \$50, the base interest rate for Petitioner is the current Tier II
9 rate of 2.00%. To this, we have added thirty basis points for the thirty-five year
10 amortization plus an additional forty-five basis points for interest rate risk until bond
11 closing.

12 **Q. Mr. Miller, is it true at this point in time, Petitioner is calculating the cost of the**
13 **proposed project based on engineering estimates not actual construction bids**
14 **received?**

15 A. That is correct.

16

17 **Q. Is it also true that the actual cost of the proposed financing is unknown given the**
18 **uncertainties with the actual interest rates?**

19 A. That is true.

20

21 **Q. Given these uncertainties, does Petitioner anticipate conducting a true-up calculation**
22 **of the proposed rates and charges?**

1 A. Yes. Once the actual construction bids are received, Petitioner will be able to
2 appropriately size the proposed borrowing. In addition, upon closing with SRF the
3 actual interest rate and annual debt service requirement will be known. At that point in
4 time, it would be appropriate to perform a true-up calculation on the rates and charges.
5

6 **Q. Please summarize the pro forma operating disbursements.**

7 A. The calculation of the pro forma annual cash operating disbursements is presented
8 beginning on page 8 of the report, which shows the test year cash operating
9 disbursements, including taxes, and the adjustments which have been made to arrive at
10 the pro forma annual cash operating disbursements. Each of the adjustments is
11 explained in detail on pages 9 through 12 of the report. Adjustments have been made to
12 reflect current price levels for labor, employee benefits, taxes, and insurance. In addition,
13 adjustments have been made to provide for periodic costs such as well and pump
14 maintenance, storage tank maintenance, filter maintenance, and meter replacement, and
15 to address non-recurring items.
16

17 **Q. Please explain the adjustment to payroll disbursements.**

18 A. The adjustment for pro forma payroll disbursements reflects the 2018 pay rates expected
19 to be approved by Petitioner's Town Council. In addition, adjustments were made to
20 normalize for the anticipated hours that each employee will work. These adjustments
21 result in an increase in payroll disbursements of \$24,147 over test year levels.
22

23 **Q. Please explain the adjustments to employee benefits.**

1 A. The adjustment for pro forma employee benefits reflects the FICA tax and pension
2 assessment on the pro forma salaries and wages and the current premiums in effect for
3 employee health, disability, dental and unemployment insurance.

4

5 **Q. Please explain the adjustment to purchased power.**

6 A. Adjustment 3 documented on page 10 of the Accounting Report adjusts the test-year
7 purchased power expenditures to reflect 12 months of purchased power disbursements.

8

9 **Q. Please explain the adjustment made to periodic maintenance disbursements.**

10 A. Proper operation and maintenance of Petitioner's plant includes a variety of activities
11 performed on a periodic basis. These include water tank maintenance, well and well
12 pump maintenance, filter replacement and maintenance, and meter replacements. The
13 estimated expenses and frequencies shown in the Accounting Report were obtained
14 from Petitioner's water superintendent, Robert Coghill, and Petitioner's engineering
15 consultant, Beam, Longest & Neff. Using the engineer's estimates and the cost associated
16 with each activity and the frequency of performance, an allowance was calculated for
17 each activity that reflects an annualized cost for each. When test year periodic
18 maintenance expenditures are considered the overall adjustment is a decrease in test
19 year operating disbursements of \$7,712.

20

21 **Q. Please explain the change in operating expenses for non-recurring or capital items.**

22 A. Five Hundred Fifty-Four Thousand Three Hundred Ninety-Nine Dollars (\$554,399) in
23 test year operating expenditures were removed as non-recurring or capital items. That

1 amount reflects disbursements associated with eminent domain proceedings, water line
2 relocation costs, gate operator replacement costs, and water improvements along the
3 Warrick Trail.

4
5
6 **Q. Please explain the utility receipts tax adjustment.**

7 A. Test year operating disbursements were adjusted to reflect the liability for the 12 month
8 period. Test year gross receipts excluding meter deposits and bond proceeds totaled
9 \$3,183,625. We adjusted this amount to eliminate exempt sales to the U.S. Post Office of
10 \$207.00 and interdepartmental sales of \$24,005.78. After eliminating the standard
11 deduction of \$1,000, taxable receipts totaled \$3,158,412 which results in utility receipts
12 tax of \$44,218 based on the tax rate of 1.4%. Actual test year disbursements totaled
13 \$50,272 resulting in a downward adjustment to the test year of \$6,054.

14
15 **Q. Please explain the postage adjustment.**

16 A. Test year postage expenditures were adjusted to reflect 12 months of anticipated
17 disbursements. Ordinarily, the Town splits the cost of utility billing postage evenly
18 between the wastewater utility and the water utility. During the test year, only three
19 monthly payments were allocated to the water utility while the remaining nine were
20 allocated to the wastewater utility. The adjustment shown on page 12 of the rate report
21 includes an additional three months of postage expenditures.

1 **Q. Please explain the normalized annual operating receipts calculations presented on**
2 **pages 13 and 14.**

3 A. Test year receipts were normalized by customer class to reflect the change in the number
4 of customers billed throughout the course of the test year.

5
6 **Q. What are the total revenue requirements that Petitioner must recover on an annual**
7 **basis to operate its water system?**

8 A. Pages 16 and 17 summarize the pro forma annual revenue requirements of Petitioner.
9 The pro forma revenue requirements incorporate the adjusted operation and
10 maintenance expenses of \$2,030,047, current debt service requirements of \$676,587,
11 proposed debt service requirements of \$945,209, proposed debt service reserve
12 requirements of \$180,149, and replacements and improvements of \$639,887. The new
13 debt service and debt service requirements have been included to provide funds for the
14 proposed \$29,294,000 loan with SRF to fund the planned improvement project. An
15 additional \$20,395 has also been included to provide for the additional utility receipts
16 tax due on the additional receipts to be generated from the proposed rate adjustment.
17 The total annual net revenue requirements have been estimated at \$4,436,230, after
18 deducting test year other operating receipts and interest earnings.

19
20 In order to provide sufficient receipts to meet the annual revenue requirements, the
21 current pro forma receipts of \$2,959,059 would need to be increased by \$1,477,171 or
22 approximately 49.9 percent across-the-board.

23

1 **Q. You have included in your revenue requirements an amount for replacements and**
2 **improvements. What is this based upon?**

3 A. The allowance for replacements and improvements is based on the calculation of
4 composite depreciation expense as shown on page 15. The utility plant in service balance
5 at August 31, 2017, less land plus capitalized items in the test year is multiplied by the
6 composite depreciation rate of 2.0% resulting in an allowance of \$637,643. The allowance
7 for depreciation expense post-project is also presented. The existing plant balance plus
8 the capitalization of the project multiplied by the composite rate of 2.0% produces an
9 allowance of \$1,195,767.

10

11

12

Cost of Service Study

13

14 **Q. Mr. Miller, would you please describe the general purpose of a cost of service study?**

15 A. A cost of service study is a detailed analysis of the cost drivers that influence the
16 provision of service to a utility's customers. The goal of the study is to determine the
17 appropriate level of cost recovery allocable to each customer class. The cost of service
18 study is normally done in conjunction with and leads to the creation of a rate design that
19 recovers costs from the appropriate customer class as closely as possible to the allocated
20 cost of service.

21

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

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

7

8 The Base-Extra Capacity method is built upon the allocation of both the utility's
9 investment in plant and its proposed revenue requirements to the various functional
10 cost categories of the utility. These functional cost categories include base, extra
11 capacity, customer and direct fire protection. Base or average day capacity costs reflect
12 items that vary based upon the amount of water used under average usage conditions.
13 Extra capacity costs are usually divided between maximum day and maximum hour
14 and include those costs that are designed to meet demands in excess of the average day
15 and maximum day respectively. As the name implies, customer costs generally vary
16 based upon the number of customers connected to the system and are usually divided
17 between meter costs and billing costs. Finally direct fire protection includes those costs
18 that are incurred in order to not only maintain fire hydrants within the system but also
19 to provide for a portion of the cost recovery of the system oversizing that is required to
20 provide sufficient flows and pressures in order to adequately address a fire event.

21

22 Once the costs have been allocated to the functional categories, they are assigned to the
23 various customer classes based upon each customer class' usage characteristics and their

1 associated responsibility for those costs. After the cost responsibility for each customer
2 class has been determined a rate structure can then be designed that appropriately
3 recovers those costs.

4
5 **Q. Would you please explain more fully the details of your cost of service and rate**
6 **design calculations?**

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

13
14 Pages 18 - 19 show a summary of this analysis by presenting Petitioner's usage
15 characteristics and test year metered billings, including monthly minimum charges and
16 volume charges on page 18 and fire protection charges on page 19. The consumer
17 analysis control period variance was -0.69% for water usage charges and 0.7% for fire
18 protection charges. These small variances indicate that the analysis and the underlying
19 billing determinants are statistically valid for rate-making purposes.

20
21 Pages 20 - 21 present the calculation of the test year equivalent meters by customer class
22 and equivalent fire connections. Annual bills are multiplied by the appropriate
23 equivalency factor to arrive at equivalent connections. The equivalency factors used are

1 those followed in the M1 Manual. These calculations reflect the fact that larger size
2 connections have the ability to place greater demands on the system and therefore
3 generally receive a larger cost allocation than small connections.

4
5 Summarized on page 22 of the report are the units of service for each customer
6 classification based upon information extracted from Petitioner's billing records for the
7 test year and adjusted for capacity factors as calculated using AWWA methodologies.
8 The four customer classifications are residential, small commercial, large commercial
9 and fire protection. The column entitled "Test Year Annual Sales" reflects the billed
10 consumption for each rate classification for the test year. The total sales are used as the
11 basis for allocating the base costs of service. For instance, the average daily demand for
12 service is anticipated to be 1,517,200 gallons. The residential average demands amount
13 to 952,700 gallons or approximately 63 percent of the total average daily demand.
14 Consequently, the residential users would be responsible for approximately 63 percent
15 of the base costs of providing water service.

16
17 The average daily demands for each rate classification have been multiplied by the
18 imputed capacity factors to determine the responsibility each customer class has for the
19 extra capacity costs associated with meeting maximum day demands and maximum
20 hour demands for service. For instance, the total maximum day demand has been
21 calculated at 5,148,100 gallons per day. This exceeds the average day demand of
22 1,517,200 gallons and results in extra maximum day capacity of 3,630,900 gallons. The
23 extra maximum day capacity of the residential customers amounts to 2,095,900 gallons

1 per day, or approximately 58 percent of the total maximum day extra capacity.

2 Accordingly, approximately 58 percent of the costs related to meeting the extra
3 maximum day demands for service are allocable to the residential customers. The
4 maximum hour demand has been calculated at a rate of 9,169,300 gallons per day. This
5 capacity exceeds the average daily demands of 1,517,200 gallons and the extra capacity
6 for maximum day demands of 3,630,900 gallons resulting in extra capacity for maximum
7 hour demands of 4,021,200 gallons.

8
9 **Q. You mentioned that you imputed some of the capacity factors. Would you please**
10 **explain the nature of the capacity factors and how you arrived at the figures**
11 **presented?**

12 A. Unlike large utilities, it did not seem prudent for Petitioner, to incur the cost of a
13 detailed customer class capacity factor study. Instead, the M1 Manual provides a
14 detailed description regarding two methodologies for calculating capacity factors. In
15 this case, as in numerous prior cases before the Commission, I employed the
16 methodology described to determine noncoincident capacity factors for each customer
17 class. Generally, this methodology works well for smaller utilities but in some cases,
18 because of a lack of data, certain inferences must be made based upon sound rate-
19 making principles and practitioner experience. These capacity factors are the foundation
20 upon which the allocations of cost are made. The maximum day capacity factors reflect
21 the relationship of each customer class' maximum day requirements to its average day
22 requirements. Likewise, the maximum hour capacity factors reflect the relationship of
23 each customer class' maximum hour requirements to its average usage. For example,

1 page 22 shows that the calculated residential capacity factor of 320 results in expected
2 maximum day total capacity needs of 3,048,600 gallons which is 320% or 3.2 times the
3 actual average day requirement of 952,700 for residential customers. Similarly, the
4 calculated residential maximum hour total capacity of 5,049,300 gallons is 5.3 times the
5 actual average day requirement of 952,700 gallons for residential users.

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

14
15 **Q. Thank you. Please continue with the explanation of your report.**

16 A. The number of bills for each customer classification was obtained directly from the
17 billing records of the Petitioner and was subsequently used as a basis for allocating
18 customer costs related to billing. The number of connections for each customer
19 classification has been weighted by equivalency factors to equate larger size meters to a
20 standard residential 5/8-inch water meter. These calculations are shown on pages 20
21 and 21 of the report. The equivalent connections for each customer classification are
22 used as a basis for allocating customer related costs associated with meters and services.

1 The ratios developed using the units of service data on page 22 of the report are used for
2 subsequent allocations.

3
4 The next several pages of the report detail the allocation of Petitioner's investment in
5 plant and the pro forma revenue requirements to the functional cost categories and
6 ultimately to the customer classes. On pages 23 and 24 of the report, Petitioner's utility
7 plant as of August 31, 2017 has been allocated to the various functional cost categories.

8
9 Pages 25 and 26 of the report present the allocation of the pro forma annual operation
10 and maintenance disbursements to each of the functional cost categories.

11
12 On page 27 the pro forma unit costs of service, as allocated to each of the functional cost
13 categories on the preceding pages, are divided by the units of service as calculated on
14 page 22 to arrive at the pro forma cost of service per unit. For example, page 27 of the
15 report shows \$367,622 of the operation and maintenance expenses, \$3,285 of additional
16 utility receipts tax, \$423,289 of debt service, \$47,019 of debt service reserve, and \$167,011
17 of replacements and improvements have been allocated to the base cost of service.

18 After deducting miscellaneous receipts of \$9,309 and \$840 of interest income, a total of
19 \$998,077 of pro forma costs of service to be recovered through rates is allocable to base
20 cost. Dividing these allocated base costs by the test year billed usage results in a pro
21 forma base cost of service of \$1.8023 per unit of service, in this case 1,000's of gallons.

22 Similar calculations have been made for the extra capacity costs and the customer and
23 fire protection costs.

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On page 28, the cost of service per unit is then applied to the corresponding units of service for each customer classification as developed on page 22 to arrive at each customer classes' responsibility for those functional costs. For example, applying the base cost of service of \$1.8023 per unit of service to the test year billed consumption of the residential users results in a base cost of service for the residential users of \$626,753. Likewise, applying the cost of service per unit for maximum day extra capacity of \$497.1475 to the residential units of service allocates \$1,041,971 of extra capacity maximum day costs to residential users. The sum of each customer classifications' responsibility for each of the functional cost categories equals the total allocated cost of service for each customer classification. Of the \$4,436,230 total pro forma net revenue requirements to be provided through rates and charges, \$2,683,202, or 60.5 percent, are allocable to residential customers, \$501,000, or 11.3 percent are allocable to the small commercial class, \$797,733, or 18.0 percent are allocable to the large commercial class and \$454,295, or 10.2 percent, are allocable to fire protection.

Page 29 calculates the proposed monthly base charge by meter size. The meter cost per unit is adjusted based on the appropriate equivalency factor for each meter size and then added to the billing cost per unit to arrive at the monthly base charge. The proposed monthly base charge will replace the existing minimum charges for each meter size.

Page 30 shows the calculation of the proposed annual automatic sprinkler charges which are derived from the proposed rate per six-inch equivalent fire hydrant connection also

1 shown on this page. The equivalent fire hydrant rate is calculated by dividing the total
2 costs to be recovered from fire protection by the total number of equivalent fire
3 protection connections and results in a charge of \$592.00 per year. This amount is then
4 set as the annual rate for public and private hydrants as well as the sixth inch automatic
5 sprinkler rate. Charges for alternative sized sprinkler connections are determined by
6 multiplying the appropriate equivalency factor based on a sum of squares methodology
7 times the rate per fire protection equivalent.

8
9 Pages 31 and 32 of the report show the calculation of the pro forma annual receipts for
10 each rate classification at the proposed rates and charges. In this case, we are proposing
11 to consolidate Petitioner's existing six tier declining block rate structure into a three tier
12 system. Specifically, the first block which includes the first 20,000 gallons of usage at a
13 price of \$6.50 per 1,000 gallons is set at a level that captures approximately 91% of the
14 residential sales. The second tier which includes the next 180,000 gallons of usage at a
15 price of \$6.05 per 1,000 gallons is set at a level that captures all remaining residential
16 sales as well as approximately 91% of the small commercial sales. The bottom or tail
17 block is then established for all usage over 200,000 gallons at a price of \$4.86 per 1,000
18 gallons and represents the large commercial consumption. The proposed rates and
19 charges when applied to test year billing determinants results in calculated receipts that
20 are within \$1,048 of the total net revenue requirement.

21

1 Page 33 of the report compares the proposed cost of service as determined on page 28
2 with the normalized annual receipts generated under the existing rates and charges and
3 receipts generated under the adjusted rates for each customer classification.

4
5 For Petitioner to achieve the allocated cost based targets compared to test year
6 normalized receipts, average residential receipts would be increased approximately
7 30.99%, small commercial receipts would be increased approximately 78.45%, larger
8 commercial receipts would be increased approximately 134.19% and fire protection
9 receipts would be increased approximately 57.06%. The proposed rate structure results
10 in some minor cross subsidization. In lieu of moving to full cost-based rates
11 immediately, some cross subsidization has been left in the proposed rate structure in an
12 effort to limit rate shock to Petitioner's large commercial class. Moving to full cost-based
13 rates at one time could negatively impact these large commercial customers. Therefore,
14 in order to mitigate that impact somewhat and promote the principle of gradualism,
15 approximately \$106,000 has been allocated back to the residential and smaller
16 commercial customer classes. Future cost of service studies can be used to continue the
17 gradual movement to full cost-based rates.

18
19 Pages 34 and 35 of the report summarize the present and proposed water rates and
20 charges. The rates proposed for residential, small commercial and large commercial
21 customers consist of a volumetric rate and a monthly service charge based on the
22 customer's meter size. The existing minimum charges have been eliminated and
23 replaced with the base charge.

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Petitioner currently has in place a sales for resale rate which provides for all flow to be billed at \$2.25 per 1,000 gallons. At this time, Petitioner does not have a wholesale customer using this rate though there are several emergency interconnections with surrounding utilities. Since there are no billing determinants to use for allocation and rate design purposes we have simply increased the existing sales for resale rate by the 49.9% across-the-board increase in overall revenue requirements. This amount exceeds the base cost of producing water of \$1.8023 but is less than the proposed tail block and therefore seems reasonable.

Page 36 of the report presents a comparison of present and proposed monthly bills for various levels of usage for several different meter sizes.

Public Fire Protection Charge

Q. Mr. Miller, would you please describe your calculation of the public fire protection charges?

A. A municipal utility such as Petitioner has the ability to collect the costs associated with providing public fire protection service via either a charge to the municipal general fund based on the number of publicly-owned fire hydrants or through a monthly charge which is added to the bill of all inside-town customers and all outside-town customers within 1,000 feet of a public fire hydrant. Petitioner converted to the monthly customer charge methodology years ago. As part of the cost of service analysis and the

1 determination of the public fire protection costs, we recalculate the amount of the
2 monthly charges in order to appropriately recover the allocated cost.

3
4 The fourth section of the report beginning on page 37 shows the number of equivalent
5 customer connections as already presented previously on page 20. Page 38 presents the
6 calculation of the monthly charge per equivalent connection. In this case, the previously
7 calculated charge per hydrant of \$592.00 is multiplied by the 682 public hydrants
8 currently in the system yielding a total cost to recover of \$403,744. This amount is then
9 divided by the number of equivalent connections to produce an annual charge of \$48.00
10 or \$4.00 per month per equivalent connection. On page 39, the annual charge per
11 equivalent connection of \$48.00 is adjusted by the appropriate equivalency factors for
12 larger size meters. When multiplied by the number of actual connections the resulting
13 annual receipts are shown to nearly equal the allocated cost of service for public fire
14 protection. Finally on page 40, the annual charges are divided by twelve months to
15 calculate the monthly charge for public fire protection for each meter size. These
16 monthly charges are billed in addition to the monthly base charge and volumetric user
17 rates discussed earlier.

18
19 **System Development Charge**

20
21 **Q. Please describe your calculations related to the proposed system development charge.**

22 A. Petitioner implemented its existing system development charge ("SDC") over ten years
23 ago upon the conclusion of Cause No. 42856. That calculation was made using an equity
24 buy-in methodology. Given the passage of time, Petitioner believes it is appropriate to

1 update the calculation to reflect current costs. To that end, on page 41, we have recreated
2 the originally approved SDC calculation using current data. Utility plant in service from
3 Petitioner's 2016 IURC annual report plus 2017 plant additions through August 31st and
4 capitalized items from page 12 are added together to arrive at a total plant value of
5 \$33,233,002. From this, accumulated depreciation is subtracted resulting in a net
6 investment in plant of \$25,189,935. Next the amount of currently outstanding debt and
7 the amount of contributions in aid of construction are subtracted to arrive at Petitioner's
8 net equity investment. Per the test year consumer analysis, current average annual
9 demand is 554.8 million gallons per day. Dividing this into the net equity investment
10 results in an investment of \$27.34 per thousand gallons used. Multiplying the \$27.34
11 times the average usage of 53.76 thousands of gallons for a typical residential customer
12 during the course of a year produces a new system development charge of \$1,470. The
13 following page shows the calculation of the system development charge for each meter
14 size based on the corresponding equivalency factor.

15
16 **Conclusion**

17
18 **Q. Does this conclude the explanation of Petitioner's Attachment SAM-1?**

19 **A. Yes it does.**

20
21 **Q. Can Petitioner obtain the funding needed to complete the capital improvements**
22 **discussed in the testimony of Mr. Coghill and Mr. Kaufman under current rates and**
23 **charges?**

1 A. No, it cannot. The net revenues at pro forma present rates are insufficient to make the
2 estimated debt service payments.

3

4 **Q. In your opinion, does the SRF provide a reasonable and cost-effective source of funds**
5 **to construct the capital improvements?**

6 A. Yes, it does. I believe the Commission should authorize the issuance of bonds covering
7 the estimated costs of the capital improvements through the SRF and allow the inclusion
8 of the costs of so doing in this rate case. The proposed rate increase provides the
9 sufficient debt service coverage to satisfy the SRF and it allows Petitioner to meet its
10 other statutory revenue requirements.

11

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

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

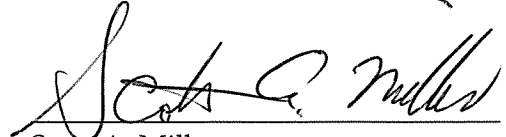
16

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

18 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: 3-6-18

Attachment No. SAM-1
Petitioner's Exhibit No. 3 (Scott A. Miller)
Town of Chandler, Indiana

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

***Town of
Chandler, Indiana***

Municipal Water Utility

February 19, 2018

***Umbaugh
Certified Public Accountants
Indianapolis, Indiana***

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ACCOUNTANTS' RATE STUDY AND COMPILATION REPORT

February 19, 2018

Town Council
Town of Chandler
417 East Jefferson Street
Chandler, Indiana 47610-0190

RE: Candler (Indiana) Municipal Water Utility (the "Water Utility")

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

This special purpose rate study report has been prepared for the purpose of requesting approval of a new schedule of water rates and charges from 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 unaudited financial information for the twelve months ended August 31, 2017, 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 an increase in rates and charges for service and other changes that may be reasonably fixed, known or measured. 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 schedule of selected financial information arising from cash transactions and the comparative schedule of cash receipts and disbursements as of December 31, 2014, 2015, 2016 and August 31, 2017, and 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 the cash basis of accounting.


(Continued on next page)

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the cash basis of accounting 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.

The financial statements are presented on the cash basis of accounting used by the Chandler Municipal Water Utility, which is a comprehensive basis of accounting other than the generally accepted accounting principles. Accordingly, these financial statements are not designed for those who are not informed about such matters.

Management has elected to omit substantially all of the disclosures ordinarily included in financial statements prepared in accordance with the cash basis of accounting. If the omitted disclosures were included in the financial statements, they might influence the user's conclusions about the water utility's assets, liabilities, equity, revenues and expenses. Accordingly, these financial statements are not designed for those who are not informed about such matters.



CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
Chandler, Indiana

PRO FORMA FINANCIAL INFORMATION

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
SCHEDULE OF ESTIMATED PROJECT COSTS AND FUNDING
(Per Consulting Engineers)

ESTIMATED PROJECT COSTS

Estimated Construction Costs:	
Water transmission line	\$13,813,000
Water line replacements downtown	5,830,000
Water line Bell Road	1,545,000
Total Estimated Construction Costs	21,188,000
Estimated Non-Construction Cost:	
Engineering (30% construction costs)	6,357,000
Land acquisition	1,500,000
Bond issuance costs	226,000
General project contingencies and rounding	23,000
Total Estimated Non-Construction Costs	8,106,000
Total Estimated Project Costs	\$29,294,000

ESTIMATED PROJECT FUNDING

Proposed SRF Waterworks Revenue Bonds of 2018	\$29,294,000
---	--------------

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**SCHEDULE OF AMORTIZATION OF \$29,294,000 PRINCIPAL AMOUNT
OF PROPOSED WATERWORKS REVENUE BONDS OF 2018**

Principal and interest payable semiannually March 1st and September 1st beginning March 1, 2019.

Assumed interest rate as indicated.

Assumes bonds are dated November 1, 2018.

Payment Date	Principal Balance (-----In \$1,000's-----)	Principal	Assumed Interest Rates (%)	Interest		Bond Year Total
				Interest	Total (-----In Dollars-----)	
3/1/2019	\$29,294	\$65	2.75	\$237,200.03	\$302,200.03	
9/1/2019	29,229	65	2.75	401,898.75	466,898.75	\$769,098.78
3/1/2020	29,164	72	2.75	401,005.00	473,005.00	
9/1/2020	29,092	72	2.75	400,015.00	472,015.00	945,020.00
3/1/2021	29,020	74	2.75	399,025.00	473,025.00	
9/1/2021	28,946	74	2.75	398,007.50	472,007.50	945,032.50
3/1/2022	28,872	76	2.75	396,990.00	472,990.00	
9/1/2022	28,796	77	2.75	395,945.00	472,945.00	945,935.00
3/1/2023	28,719	78	2.75	394,886.25	472,886.25	
9/1/2023	28,641	79	2.75	393,813.75	472,813.75	945,700.00
3/1/2024	28,562	80	2.75	392,727.50	472,727.50	
9/1/2024	28,482	80	2.75	391,627.50	471,627.50	944,355.00
3/1/2025	28,402	84	2.75	390,527.50	474,527.50	
9/1/2025	28,318	84	2.75	389,372.50	473,372.50	947,900.00
3/1/2026	28,234	86	2.75	388,217.50	474,217.50	
9/1/2026	28,148	87	2.75	387,035.00	474,035.00	948,252.50
3/1/2027	28,061	65	2.75	385,838.75	450,838.75	
9/1/2027	27,996	67	2.75	384,945.00	451,945.00	902,783.75
3/1/2028	27,929	67	2.75	384,023.75	451,023.75	
9/1/2028	27,862	69	2.75	383,102.50	452,102.50	903,126.25
3/1/2029	27,793	70	2.75	382,153.75	452,153.75	
9/1/2029	27,723	70	2.75	381,191.25	451,191.25	903,345.00
3/1/2030	27,653	72	2.75	380,228.75	452,228.75	
9/1/2030	27,581	72	2.75	379,238.75	451,238.75	903,467.50
3/1/2031	27,509	435	2.75	378,248.75	813,248.75	
9/1/2031	27,074	436	2.75	372,267.50	808,267.50	1,621,516.25
3/1/2032	26,638	445	2.75	366,272.50	811,272.50	
9/1/2032	26,193	450	2.75	360,153.75	810,153.75	1,621,426.25
3/1/2033	25,743	457	2.75	353,966.25	810,966.25	
9/1/2033	25,286	463	2.75	347,682.50	810,682.50	1,621,648.75
3/1/2034	24,823	470	2.75	341,316.25	811,316.25	
9/1/2034	24,353	476	2.75	334,853.75	810,853.75	1,622,170.00
3/1/2035	23,877	483	2.75	328,308.75	811,308.75	
9/1/2035	23,394	489	2.75	321,667.50	810,667.50	1,621,976.25
3/1/2036	22,905	496	2.75	314,943.75	810,943.75	
9/1/2036	22,409	503	2.75	308,123.75	811,123.75	1,622,067.50
3/1/2037	21,906	510	2.75	301,207.50	811,207.50	
9/1/2037	21,396	516	2.75	294,195.00	810,195.00	1,621,402.50
3/1/2038	20,880	523	2.75	287,100.00	810,100.00	
9/1/2038	20,357	532	2.75	279,908.75	811,908.75	1,622,008.75
3/1/2039	19,825	538	2.75	272,593.75	810,593.75	
9/1/2039	19,287	546	2.75	265,196.25	811,196.25	1,621,790.00
Sub-totals		\$10,553		\$15,047,022.53	\$25,600,022.53	\$25,600,022.53

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

**SCHEDULE OF AMORTIZATION OF \$29,294,000 PRINCIPAL AMOUNT
OF PROPOSED WATERWORKS REVENUE BONDS OF 2018**

Principal and interest payable semiannually March 1st and September 1st beginning March 1, 2019.

Assumed interest rate as indicated.

Assumes bonds are dated November 1, 2018.

Payment Date	Principal Balance (-----In \$1,000's-----)	Principal	Assumed Interest Rates (%)	Interest		Bond Year Total
				Interest	Total	
-----In Dollars-----						
Sub-totals carried forward		\$10,553		\$15,047,022.53	\$25,600,022.53	\$25,600,022.53
3/1/2040	\$18,741	554	2.75	257,688.75	811,688.75	
9/1/2040	18,187	560	2.75	250,071.25	810,071.25	1,621,760.00
3/1/2041	17,627	567	2.75	242,371.25	809,371.25	
9/1/2041	17,060	578	2.75	234,575.00	812,575.00	1,621,946.25
3/1/2042	16,482	584	2.75	226,627.50	810,627.50	
9/1/2042	15,898	593	2.75	218,597.50	811,597.50	1,622,225.00
3/1/2043	15,305	600	2.75	210,443.75	810,443.75	
9/1/2043	14,705	610	2.75	202,193.75	812,193.75	1,622,637.50
3/1/2044	14,095	618	2.75	193,806.25	811,806.25	
9/1/2044	13,477	625	2.75	185,308.75	810,308.75	1,622,115.00
3/1/2045	12,852	634	2.75	176,715.00	810,715.00	
9/1/2045	12,218	643	2.75	167,997.50	810,997.50	1,621,712.50
3/1/2046	11,575	651	2.75	159,156.25	810,156.25	
9/1/2046	10,924	661	2.75	150,205.00	811,205.00	1,621,361.25
3/1/2047	10,263	670	2.75	141,116.25	811,116.25	
9/1/2047	9,593	679	2.75	131,903.75	810,903.75	1,622,020.00
3/1/2048	8,914	687	2.75	122,567.50	809,567.50	
9/1/2048	8,227	699	2.75	113,121.25	812,121.25	1,621,688.75
3/1/2049	7,528	709	2.75	103,510.00	812,510.00	
9/1/2049	6,819	716	2.75	93,761.25	809,761.25	1,622,271.25
3/1/2050	6,103	727	2.75	83,916.25	810,916.25	
9/1/2050	5,376	737	2.75	73,920.00	810,920.00	1,621,836.25
3/1/2051	4,639	747	2.75	63,786.25	810,786.25	
9/1/2051	3,892	757	2.75	53,515.00	810,515.00	1,621,301.25
3/1/2052	3,135	767	2.75	43,106.25	810,106.25	
9/1/2052	2,368	779	2.75	32,560.00	811,560.00	1,621,666.25
3/1/2053	1,589	789	2.75	21,848.75	810,848.75	
9/1/2053	800	800	2.75	11,000.00	811,000.00	1,621,848.75
Totals		<u>\$29,294</u>		<u>\$19,012,412.53</u>	<u>\$48,306,412.53</u>	<u>\$48,306,412.53</u>
Average annual principal and interest payment for the five bond years ending September 1, 2024.						<u>\$945,208.50</u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

PROPOSED SCHEDULE OF COMBINED BOND AMORTIZATION

<u>Payment Date</u>	<u>Outstanding 2010 Bonds</u>	<u>Outstanding 2016 Bonds</u>	<u>Proposed 2018 Bonds</u>	<u>Bond Year Total</u>
3/1/2018	\$63,493.40	\$272,827.50		
9/1/2018	62,201.40	275,700.00		\$674,222.30
3/1/2019	61,924.00	273,526.25	\$302,200.03	
9/1/2019	61,646.60	276,352.50	466,898.75	1,442,548.13
3/1/2020	60,369.20	279,132.50	473,005.00	
9/1/2020	60,106.40	276,866.25	472,015.00	1,621,494.35
3/1/2021	59,843.60	279,600.00	473,025.00	
9/1/2021	59,580.80	277,287.50	472,007.50	1,621,344.40
3/1/2022	59,318.00	279,975.00	472,990.00	
9/1/2022	59,055.20	277,616.25	472,945.00	1,621,899.45
3/1/2023	58,792.40	280,257.50	472,886.25	
9/1/2023	54,529.60	282,852.50	472,813.75	1,622,132.00
3/1/2024	54,325.20	285,401.25	472,727.50	
9/1/2024	55,120.80	282,903.75	471,627.50	1,622,106.00
3/1/2025	49,901.80	285,406.25	474,527.50	
9/1/2025	50,755.80	287,862.50	473,372.50	1,621,826.35
3/1/2026	47,595.20	290,272.50	474,217.50	
9/1/2026	48,478.40	287,636.25	474,035.00	1,622,234.85
3/1/2027	359,347.00		450,838.75	
9/1/2027	359,675.00		451,945.00	1,621,805.75
3/1/2028	359,930.00		451,023.75	
9/1/2028	359,112.00		452,102.50	1,622,168.25
3/1/2029	359,235.60		452,153.75	
9/1/2029	359,286.20		451,191.25	1,621,866.80
3/1/2030	359,263.80		452,228.75	
9/1/2030	359,168.40		451,238.75	1,621,899.70
3/1/2031			813,248.75	
9/1/2031			808,267.50	1,621,516.25
3/1/2032			811,272.50	
9/1/2032			810,153.75	1,621,426.25
3/1/2033			810,966.25	
9/1/2033			810,682.50	1,621,648.75
3/1/2034			811,316.25	
9/1/2034			810,853.75	1,622,170.00
3/1/2035			811,308.75	
9/1/2035			810,667.50	1,621,976.25
3/1/2036			810,943.75	
9/1/2036			811,123.75	1,622,067.50
3/1/2037			811,207.50	
9/1/2037			810,195.00	1,621,402.50
3/1/2038			810,100.00	
9/1/2038			811,908.75	1,622,008.75
3/1/2039			810,593.75	
9/1/2039			811,196.25	1,621,790.00
Sub-totals	<u>\$3,902,055.80</u>	<u>\$5,051,476.25</u>	<u>\$25,600,022.53</u>	<u>\$34,553,554.58</u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
PROPOSED SCHEDULE OF COMBINED BOND AMORTIZATION

(Cont'd)

Payment Date	Outstanding 2010 Bonds	Outstanding 2016 Bonds	Proposed 2018 Bonds	Bond Year Total
Sub-totals carried forward	\$3,902,055.80	\$5,051,476.25	\$25,600,022.53	\$34,553,554.58
3/1/2040			811,688.75	
9/1/2040			810,071.25	1,621,760.00
3/1/2041			809,371.25	
9/1/2041			812,575.00	1,621,946.25
3/1/2042			810,627.50	
9/1/2042			811,597.50	1,622,225.00
3/1/2043			810,443.75	
9/1/2043			812,193.75	1,622,637.50 *
3/1/2044			811,806.25	
9/1/2044			810,308.75	1,622,115.00
3/1/2045			810,715.00	
9/1/2045			810,997.50	1,621,712.50
3/1/2046			810,156.25	
9/1/2046			811,205.00	1,621,361.25
3/1/2047			811,116.25	
9/1/2047			810,903.75	1,622,020.00
3/1/2048			809,567.50	
9/1/2048			812,121.25	1,621,688.75
3/1/2049			812,510.00	
9/1/2049			809,761.25	1,622,271.25
3/1/2050			810,916.25	
9/1/2050			810,920.00	1,621,836.25
3/1/2051			810,786.25	
9/1/2051			810,515.00	1,621,301.25
3/1/2052			810,106.25	
9/1/2052			811,560.00	1,621,666.25
3/1/2053			810,848.75	
9/1/2053			811,000.00	1,621,848.75
Totals	<u>\$3,902,055.80</u>	<u>\$5,051,476.25</u>	<u>\$48,306,412.53</u>	<u>\$57,259,944.58</u>
Average annual principal and interest payment for the five bond years ending September 1, 2024.				<u>\$1,621,795.24</u>

* Maximum annual combined debt service.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

PRO FORMA ANNUAL CASH OPERATING DISBURSEMENTS

See Explanation of Adjustments, pages 9 to 12.

<u>Operating Disbursements:</u>	<u>12 Months Ended 8/31/17 (Unaudited)</u>	<u>Adjustments</u>	<u>(Ref.)</u>	<u>Pro forma</u>
Source of supply:				
Repairs and maintenance	\$62,260			\$62,260
Water treatment:				
Salaries and wages	87,731	\$2,341	(1)	90,072
Purchased power	141,813	13,477	(3)	155,290
Repairs and maintenance	18,235	(3,591)	(5)	14,644
Chemicals	24,433			24,433
Transmission and distribution:				
Salaries and wages	264,572	17,139	(1)	281,711
Purchased power	11,784	187	(3)	11,971
Materials and supplies	180,663	(28,000)	(5)	152,663
Repairs and maintenance	275,812	(7,712)	(4)	268,100
Contractual services	607,967	(522,808)	(5)	85,159
Fuel	45,542			45,542
Other	38,778			38,778
Customer accounts:				
Salaries and wages	61,353	1,685	(1)	63,038
Administrative and general:				
Salaries and wages	120,931	2,982	(1)	123,913
Employee pensions and benefits	360,947	62,163	(2)	423,110
Purchased power	11,209			11,209
Office supplies	22,102			22,102
Insurance	78,934			78,934
Contractual services	2,683			2,683
Postage	14,023	7,655	(7)	21,678
Taxes	50,272	(6,054)	(6)	44,218
Telephone	8,539			8,539
	<u>8,539</u>	<u></u>		<u>8,539</u>
Total Operating Disbursements	<u>\$2,490,583</u>	<u>(\$460,536)</u>		<u>\$2,030,047</u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

PRO FORMA ANNUAL CASH OPERATING DISBURSEMENTS

**Explanation of adjustments
No inflation adjustment made.**

Adjustment (1) - Salaries and Wages

To adjust test year payroll disbursements to reflect pro forma salaries and wages based on 2017 salary and wage ordinance.

	Treatment	Transmission & Distribution	Customer Accounts	Administrative & General	Total
Pro forma payroll	\$90,072	\$281,711	\$63,038	\$123,913	\$558,734
Less test year amount	<u>(87,731)</u>	<u>(264,572)</u>	<u>(61,353)</u>	<u>(120,931)</u>	<u>(534,587)</u>
Adjustment	<u>\$2,341</u>	<u>\$17,139</u>	<u>\$1,685</u>	<u>\$2,982</u>	<u>\$24,147</u>

Adjustment (2) - Employee Pensions and Benefits

To adjust test year FICA disbursements to reflect the pro forma payroll disbursements.

Pro forma payroll subject to FICA	\$558,734
Times FICA rate 7.65%	<u>7.65%</u>
Pro forma FICA disbursements	42,743
Less test year amount	<u>(39,697)</u>
Sub-total	<u>\$3,046</u>

To adjust test year PERF expense to reflect pro forma payroll disbursements.

Pro forma payroll subject to PERF	\$535,904
Times PERF rate 14.2%	<u>14.2%</u>
Pro forma PERF disbursements	76,098
Less test year disbursements	<u>(71,283)</u>
Sub-total	<u>4,815</u>

To adjust test year contribution to Town BASIC insurance and clothing allowance

Pro forma contribution per year	\$40,500
Less test year disbursements	<u>(40,500)</u>
Sub-total	<u>-</u>
Sub-total carried forward	<u>\$7,861</u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING DISBURSEMENTS

Explanation of adjustments
No inflation adjustment made.

Adjustment (2) - Employee Benefits (continued)

Sub-total carried forward \$7,861

To adjust test year health, disability and dental insurance disbursements to reflect estimated premiums.

Pro forma premium for health insurance per pay period	\$9,226
Pro forma premium for dental insurance per pay period	467
Pro forma premium for disability insurance per pay period	409

Sub-total	10,102
Times 26 pay periods	26

Pro forma disbursements	262,652
Less test year disbursements	(208,328)

Sub-total 54,324

To adjust test year unemployment tax payments to reflect pro forma disbursements.

Pro forma annual disbursements	\$1,117
Less test year disbursements	(1,139)

Sub-total (22)

Adjustment \$62,163

Adjustment (3) - Purchased Power

To adjust test year disbursements to reflect 12 months of purchased power disbursements.

	Treatment	Transmission & Distribution	Administrative & General	Total
Pro forma purchased power disbursements	\$155,290	\$11,971	\$11,209	\$178,470
Less test year purchased power disbursements	(141,813)	(11,784)	(11,209)	(164,806)
Adjustment	\$13,477	\$187	-	\$13,664

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING DISBURSEMENTS

Explanation of adjustments
No inflation adjustment made.

Adjustment (4) - Periodic Maintenance

To adjust test year expenditures to reflect pro forma annual periodic maintenance disbursements, as determined by the utility manager and consulting engineer.

A. <u>Tank Maintenance:</u>			
	Water tanks contract (4 tanks and 1 standpipe)		\$143,205
B. <u>Wells and Pumps</u>			
	Wells and pumps (6 wells @ \$12,000)	\$72,000	
	Amortize over three years	<u>3</u>	
	Sub-total		24,000
C. <u>Filters:</u>			
	Cost of overhauling filters (4 filters - \$5,000 each)	\$20,000	
	Amortize over seven years	<u>7</u>	
	Sub-total		<u>2,857</u>
D. <u>Meters:</u>			
	Cost of replacing meters in service and on hand 12/31/2016.		
	<u>Meter size</u>	<u>Qty.</u>	<u>Price</u>
	3/4" x 5/8"	6,834	\$105
	1"	325	190
	1 1/2"	44	1,325
	2"	100	1,544
	3"	13	1,930
	4"	6	2,535
	6"	4	5,785
			<u>23,140</u>
	Sub-total		1,055,460
	Amortize over 10 years		<u>10</u>
	Sub total		<u>105,546</u>
	Pro forma annual periodic maintenance disbursements		275,608
	Less test year periodic maintenance expenditures		<u>(283,320)</u>
	Adjustment		<u><u>(\$7,712)</u></u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

PRO FORMA ANNUAL CASH OPERATING DISBURSEMENTS

Explanation of adjustments
No inflation adjustment made.

Adjustment (5) - Non-recurring or Capital Disbursements

To eliminate test year expenditures that are considered non-recurring or capital.

Date	Account	Description	Amount
Sept. 2016 - Aug. 2017	Contractual Services	Legal costs for eminent domain	(\$6,809)
Sept. 2016 - Aug. 2017	Contractual Services	Water line relocation - highway	(515,999)
1/3/2017	Materials and supplies	Warrick Trail water improvements	(28,000)
7/3/2017	Materials and supplies	Gate operator	(3,591)
	Adjustment		(\$554,399)

Adjustment (6) - Utility Receipts Tax

To provide for utility receipts tax due on test year gross receipts.

Test year gross receipts		\$3,183,625
Less:		
Exempt receipts		(24,213)
Annual taxpayer deduction per Indiana Department of Revenue		(1,000)
Total taxable receipts		3,158,412
Utility receipts tax		1.40%
Subtotal		44,218
Less test year disbursements		(50,272)
Adjustment		(\$6,054)

Adjustment (7) Postage

To adjust test year postage expenditures to reflect pro forma annual postage disbursements.

Pro forma postage disbursements		\$21,678
Less test year postage disbursements		(14,023)
Adjustment		\$7,655

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

NORMALIZED ANNUAL OPERATING RECEIPTS
AT EXISTING RATES

	<u>Residential Customers Billed</u>	<u>Increase (Decrease) in Users</u>	<u>Times Additional Monthly Bills</u>	<u>Additional Monthly Bills</u>
September, 2016	6,504			
October	6,527	23	1	23
November	6,545	18	2	36
December	6,484	(61)	3	(183)
January, 2017	6,362	(122)	4	(488)
February	6,327	(35)	5	(175)
March	6,303	(24)	6	(144)
April	6,326	23	7	161
May	6,404	78	8	624
June	6,503	99	9	891
July	6,649	146	10	1,460
August	6,659	10	11	110
Totals		<u>155</u>		2,315

Times average residential monthly bill
at existing rates x \$25.53

Total normalized increase in residential metered sales 59,102
Plus test year metered sales 1,989,313

Total Normalized Metered Residential Sales \$2,048,415

	<u>Small Commercial Customers Billed</u>	<u>Increase (Decrease) in Users</u>	<u>Times Additional Monthly Bills</u>	<u>Additional Monthly Bills</u>
September, 2016	530			
October	347	(183)	1	(183)
November	348	1	2	2
December	345	(3)	3	(9)
January, 2017	346	1	4	4
February	347	1	5	5
March	344	(3)	6	(18)
April	245	(99)	7	(693)
May	350	105	8	840
June	350	0	9	0
July	352	2	10	20
August	352	0	11	0
Totals		<u>(178)</u>		(32)

Times average small commercial monthly bill
at existing rates x \$66.47

Total normalized increase in small commercial metered sales (2,127)
Plus test year metered sales 282,884

Total Normalized Metered Small Commercial Sales \$280,757

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

Cont'd

NORMALIZED ANNUAL OPERATING RECEIPTS
AT EXISTING RATES

	Large Commercial Customers Billed	Increase (Decrease) in Users	Times Additional Monthly Bills	Additional Monthly Bills
September, 2016	6			
October	6	0	1	0
November	6	0	2	0
December	6	0	3	0
January, 2017	6	0	4	0
February	7	1	5	5
March	7	0	6	0
April	7	0	7	0
May	7	0	8	0
June	7	0	9	0
July	7	0	10	0
August	7	0	11	0
Totals		<u>1</u>		5
Times average large commercial monthly bill at existing rates				x <u>\$4,055.13</u>
Total normalized increase in large commercial metered sales				20,276
Plus test year metered sales				<u>320,355</u>
Total Normalized Metered Large Commercial Sales				<u><u>\$340,631</u></u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**CALCULATION OF AVERAGE ANNUAL ADDITIONS TO UTILITY PLANT AND
PRO FORMA DEPRECIATION ALLOWANCE**

I. Calculation of Average Annual Additions to Utility Plant
Funded Through Operating Receipts

Utility plant in service at 12/31/12		\$31,211,824
<u>Calendar Year</u>	<u>Additions</u>	
2013	\$309,078	
2014	305,517	
2015	329,677	
2016	408,072	
8 months ended 8/31/2017	<u>114,436</u>	
Total additions to utility plant		<u>1,466,780</u>
Utility plant in service at 8/31/2017		<u><u>\$32,678,604</u></u>
Total additions to plant		\$1,466,780
Less Contributions in Aid of Construction 2013 - 8/31/2017		<u>(363,968)</u>
Sub-total		1,102,812
Divide by period covered (4.667 years)		<u>4.667</u>
Average annual additions to utility plant funded through rates		<u><u>\$236,300</u></u>

II. Calculation of Pro Forma Depreciation Allowance:

	<u>Prior to Project</u>	<u>After Project</u>
Utility plant in service at 12/31/17	\$32,678,604	\$32,678,604
Less land	(684,251)	(2,184,251)
Plus proposed project		<u>29,294,000</u>
Depreciable plant	31,994,353	59,788,353
Times composite depreciation rate	<u>2.0%</u>	<u>2.0%</u>
Annual Depreciation Allowance	<u><u>\$639,887</u></u>	<u><u>\$1,195,767</u></u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

PRO FORMA ANNUAL REVENUE REQUIREMENTS AND ANNUAL OPERATING RECEIPTS

See Explanation of Adjustments, Page 17

	12 Months Ended 8/31/2017 (Unaudited)	Adjustments	Ref.	Pro forma
<u>Annual Revenue Requirements:</u>				
Cash operating disbursements	\$2,490,583	(\$460,536)	(1)	\$2,030,047
Debt Service:				
Outstanding debt	587,899	88,688	(2)	676,587
Proposed debt		945,209	(3)	945,209
Debt service reserve				
Outstanding debt			(4)	-
Proposed debt		180,149	(5)	180,149
Replacements and improvements:	<u>224,679</u>	<u>415,208</u>	(6)	<u>639,887</u>
Total revenue requirements	<u>3,303,161</u>	<u>1,168,718</u>		<u>4,471,879</u>
Less test year interest receipts	(4,640)		(7)	(4,640)
Less other operating receipts	<u>(51,404)</u>		(7)	<u>(51,404)</u>
Net Revenue Requirements	<u><u>\$3,247,117</u></u>	<u><u>\$1,168,718</u></u>		<u><u>\$4,415,835</u></u>
<u>Annual Receipts:</u>				
Metered sales	\$2,592,552	\$77,251	(8)	\$2,669,803
Fire protection				
Public	249,957			249,957
Private	<u>39,299</u>			<u>39,299</u>
Totals	<u><u>\$2,881,808</u></u>	<u><u>\$77,251</u></u>		<u><u>\$2,959,059</u></u>
Additional Revenues Required	\$654,565	\$802,211		\$1,456,776
Additional utility receipts tax	<u>-</u>	<u>20,395</u>	(9)	<u>20,395</u>
Totals	<u><u>\$654,565</u></u>	<u><u>\$822,606</u></u>		<u><u>\$1,477,171</u></u>
Approximate Across-the-Board Percentage Increase Calculated				<u><u>49.9%</u></u>
Resulting approximate average monthly residential bill for 4,000 gallons (presently \$25.93)*				<u><u>\$38.87</u></u>

*Includes fire protection charge.

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

PRO FORMA ANNUAL REVENUE REQUIREMENTS AND ANNUAL OPERATING RECEIPTS

(1)	To reflect pro forma operation and maintenance disbursements as calculated on pages 8 - 12.	
(2)	To reflect average annual debt service on the outstanding 2010 and 2016 bonds, for the five bond years ending September 1, 2024. See page 48.	
	Pro forma amount	\$676,587
	Less test year amount	<u>(587,899)</u>
	Adjustment	<u>\$88,688</u>
(3)	To reflect average annual debt service on the proposed 2018 Revenue Bonds for the five bond years ending September 1, 2024. See page 5.	
	Adjustment	<u>\$945,209</u>
(4)	The debt service reserve for the outstanding bonds is fully funded.	
(5)	The debt service reserve for the proposed bonds will be funded over five years. The debt service reserve must equal the combined maximum annual debt service on the outstanding bonds and the proposed bonds of \$1,622,638, see page 7.	
	Debt service reserve requirement	\$1,622,638
	Less debt service reserve balance 8/31/2017	<u>(721,895)</u>
	Sub-total	900,743
	Divide by 5 years	<u>5</u>
	Adjustment	<u>\$180,149</u>
(6)	To provide an allowance for replacements and improvements equal to depreciation expense, page 15.	<u>\$639,887</u>
(7)	Assumed at test year amounts.	
(8)	To reflect normalized receipts for the year, pages 13-14.	<u>\$2,967,136</u>
(9)	To provide for additional utility receipts tax at 1.4% of the additional receipts required.	

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
Chandler, Indiana

COST OF SERVICE STUDY

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

CONSUMER STUDY SUMMARY
(For the 12 Months Ended August 31, 2017)

Meter Size	Minimum Billings				Usage Billings - 1,000's Gallons)							
	Minimum Usage	Number of Bills	Rate	Receipts	Number of Bills	First Rate Block Usage	Second Rate Block Usage	Third Rate Block Usage	Fourth Rate Block Usage	Fifth Rate Block Usage	Sixth Rate Block Usage	
3/4 by 5/8 inch meter	35,432.6	26,342	\$17.25	\$454,400	50,411	126,027.5	121,994.1	19,224.4	12,965.1	5,289.9	1,118.8	
1 inch meter	3,710.9	1,652	24.63	40,689	1,772	4,430.0	9,621.7	4,436.0	4,518.7	5,235.4	832.0	
1 1/2 inch meter	1,166.8	256	49.34	12,631	181	452.5	1,357.5	1,560.7	1,990.7	2,288.4	157.4	
2 inch meter	2,370.0	351	82.38	28,915	643	1,607.5	4,822.5	6,430.0	15,077.2	22,845.2	3,635.2	
3 inch meter	463.3	19	164.71	3,129	126	315.0	945.0	1,260.0	3,779.8	14,024.4	29,863.1	
4 inch meter	312.0	19	331.12	6,291	37	92.5	277.5	370.0	1,110.0	9,250.0	21,014.6	
6 inch meter	30.6	4	622.40	2,490	29	72.5	217.5	290.0	870.0	7,173.0	41,441.3	
Sub-Totals						132,997.5	139,235.8	33,571.1	40,311.5	66,106.3	98,062.4	
Times Rate						\$6.90	\$3.69	\$3.48	\$2.95	\$2.49	\$2.17	
Totals	<u>43,486.2</u>	<u>28,643</u>		<u>\$548,545</u>	<u>53,199</u>	<u>\$917,683</u>	<u>\$513,780</u>	<u>\$116,827</u>	<u>\$118,919</u>	<u>\$164,605</u>	<u>\$212,795</u>	
Total Bills											<u>81,842</u>	
Total Usage											<u>553,770.8</u>	
Total Calculated Receipts											\$2,593,154	
Less Billing Adjustments											<u>(18,576)</u>	
Sub-Total											<u>\$2,574,578</u>	
Control - Billed Receipts											<u>\$2,592,552</u>	
Variance											<u>(\$17,974)</u>	
Percentage Variance											<u>-0.69%</u>	

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

SUMMARY OF FIRE PROTECTION CONSUMER STUDY

<u>Private Fire Protection</u>	<u>Per Annum</u>	<u>Number of Hydrants</u>	<u>Total Billed Private Hydrants</u>
<u>Private Hydrant - per hydrant - per annum</u>	\$474.15	23	<u>\$10,905.45</u>

Private Spinklers - per annum

<u>Sprinkler Size</u>	<u>Per Annum</u>	<u>Number of Sprinklers</u>	<u>Billed Private Sprinklers</u>
1 1/2 connection	\$29.64	1	\$29.64
2 inch connection	52.69	14	737.66
4 inch connection	210.74	16	3,371.84
6 inch connection	474.15	40	18,966.00
8 inch connection	842.91	8	6,743.28
Total Private Sprinklers		<u>79</u>	<u>\$29,848.42</u>

Public Fire Protection Surcharge

<u>Meter Size</u>	<u>Monthly Surcharge</u>	<u>Number of Bills</u>	<u>Total Billed Fire Protection</u>
3/4" by 5/8"	\$3.14	70,474	\$221,288.36
1"	3.99	2,609	10,409.91
1 1/2"	5.13	403	2,067.39
2"	8.27	889	7,352.03
3"	31.36	133	4,170.88
4"	39.91	68	2,713.88
6"	59.86	33	1,975.38
Totals		<u>74,609</u>	<u>\$249,977.83</u>

Total Test Year Fire Protection \$290,731.70

Control \$288,668.00

Variance \$2,063.70

Percent Variance 0.7%

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

CALCULATION OF TEST YEAR EQUIVALENT METERS

(Based upon test year service charge billings)

		<u>Gallons</u>	<u>Annual Bills</u>	<u>Average Connections</u>	<u>Equivalency Factor</u>	<u>Equivalent Meters and Services</u>
<u>Residential:</u>						
5/8-3/4	inch meter	311,901,000	74,575	6,215	1.0	6,215
1	inch meter	22,090,900	2,533	211	2.5	528
1 1/2	inch meter	2,135,100	154	13	5.0	65
2	inch meter	11,624,500	301	25	8.0	200
Sub-totals		<u>347,751,500</u>	<u>77,563</u>	<u>6,464</u>		<u>7,008</u>
<u>Small Commercial:</u>						
5/8-3/4	inch meter	10,151,400	2,178	182	1.0	182
1	inch meter	10,693,800	891	74	2.5	185
1 1/2	inch meter	6,838,900	283	24	5.0	120
2	inch meter	45,163,100	693	58	8.0	464
Sub-totals		<u>72,847,200</u>	<u>4,045</u>	<u>338</u>		<u>951</u>
<u>Large Commercial:</u>						
3	inch meter	50,650,600	145	12	15.0	180
4	inch meter	32,426,600	56	5	25.0	125
6	inch meter	50,094,900	33	3	50.0	150
Sub-totals		<u>133,172,100</u>	<u>234</u>	<u>20</u>		<u>455</u>
Totals		<u><u>553,770,800</u></u>	<u><u>81,842</u></u>	<u><u>6,822</u></u>		<u><u>8,414</u></u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALCULATION OF TEST YEAR EQUIVALENT METERS

(Based upon test year service charge billings)

<u>Fire Protection:</u>	<u>Number of Connections</u>	<u>Equivalency Factor (1)</u>	<u>Equivalent Fire Connections</u>
1 1/2 inch connection	1	0.06250	-
2 inch connection	14	0.11111	2
4 inch connection	16	0.44444	7
6 inch connection	40	1.00000	40
8 inch connection	8	1.77778	14
Private hydrants	23	1.00000	23
Public hydrants (2)	<u>682</u>	1.00000	<u>682</u>
Totals	<u><u>784</u></u>		<u><u>768</u></u>

(1) Reflects sum of the squares methodology.

(2) Per utility management

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

TEST YEAR UNITS OF SERVICE
Base-Extra Capacity Method

Customer Class	Base		Maximum Day			Maximum Hour			Customer		Equivalent Hydrants
	Test Year Annual Sales (1)	Average Day (2)	Capacity Factor (3) %	Total Capacity (2)	Extra Capacity (4) (2)	Capacity Factor %	Total Capacity (3) (2)	Extra Capacity (5) (2)	Equivalent Connections	Bills	
Residential	347,751.5	952.7	320	3,048.6	2,095.9	530	5,049.3	2,000.7	7,008	77,563	
Small Commercial	72,847.2	199.6	310	618.8	419.2	520	1,037.9	419.1	951	4,045	
Large Commercial	133,172.1	364.9	340	1,240.7	875.8	450	1,642.1	401.4	455	234	
Fire Protection*				240.0	240.0		1,440.0	1,200.0			768
Totals	553,770.8	1,517.2		5,148.1	3,630.9		9,169.3	4,021.2	8,414	81,842	768

(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.

*Based on average hydrant flow of 1,000 gallons per minute for a 4 hour duration.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

ALLOCATION OF UTILITY PLANT TO FUNCTIONAL COST COMPONENTS

Base-Extra Capacity Method

	Utility Plant in Service at 08/31/17	Base	Extra Capacity		Customer Meters and Services	Direct Fire Protection Service	Percentage Allocations					Ref.
			Maximum Day	Maximum Hour			BAS	MXD	MXH	CUS	FP	
Source of Supply Plant:												
Land and land rights	\$684,251	\$684,251					100.00%					(1)
Pumping equipment	107,177	107,177					100.00%					(1)
Wells and springs	396,872	396,872					100.00%					(1)
Water Treatment:												
Structures and improvements	17,811,116	5,248,936	\$12,562,180				29.47%	70.53%				(2)
Other plant equipment	1,864,843	549,569	1,315,274				29.47%	70.53%				(2)
Transmission and Distribution:												
Distribution Storage	2,731,080	273,108		\$2,457,972			10.00%		90.00%			(3)
Mains	4,820,285	797,757	1,908,833	2,113,695			16.55%	39.60%	43.85%			(4)
Meters	2,234,361				\$2,234,361					100.00%		(5)
Hydrants	222,145					\$222,145					100.00%	(6)
General Plant:												
Structures and improvements	335,195	87,486	171,386	49,642	24,268	2,413	26.10%	51.13%	14.81%	7.24%	0.72%	(7)
Office furniture	97,775	25,519	49,993	14,480	7,079	704	26.10%	51.13%	14.81%	7.24%	0.72%	(7)
Transportation equipment	546,597	142,662	279,475	80,951	39,574	3,935	26.10%	51.13%	14.81%	7.24%	0.72%	(7)
Power operated equipment	630,102	164,457	322,171	93,318	45,619	4,537	26.10%	51.13%	14.81%	7.24%	0.72%	(7)
Miscellaneous equipment	196,805	51,366	100,626	29,147	14,249	1,417	26.10%	51.13%	14.81%	7.24%	0.72%	(7)
Totals	\$32,678,604	\$8,529,160	\$16,709,938	\$4,839,205	\$2,365,150	\$235,151	26.10%	51.13%	14.81%	7.24%	0.72%	

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(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's of Gallons</u>	<u>%</u>
Average day demand	1,517.2	29.47%
Maximum day extra capacity	<u>3,630.9</u>	<u>70.53%</u>
Totals	<u><u>5,148.1</u></u>	<u><u>100.00%</u></u>

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

(4) Allocated in ratio to maximum hour demand.

	<u>1,000's of Gallons</u>	<u>%</u>
Average day demand	1,517.2	16.55%
Maximum day extra capacity	3,630.9	39.60%
Maximum hour extra capacity	<u>4,021.2</u>	<u>43.85%</u>
Totals	<u><u>9,169.3</u></u>	<u><u>100.00%</u></u>

(5) Allocated 100% to meters and services.

(6) Allocated 100% to fire protection.

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

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE DISBURSEMENTS
TO FUNCTIONAL COST COMPONENTS**

Base-Extra Capacity Method

Source of supply:	Pro Forma Expense	Base	Extra Capacity		Customer Costs		Direct Fire Protection Service	Percentage Allocation						Ref.	
			Maximum Day	Maximum Hour	Meters and Services	Billing and Collecting		BAS	MXD	MXH	MET	BILL	FP		
Repairs and maintenance	\$62,260	\$62,260						100.00%							(1)
Water treatment:															
Salaries and wages	90,072	26,544	\$63,528					29.47%	70.53%						(2)
Purchased power	155,290	45,764	109,526					29.47%	70.53%						(2)
Repairs and maintenance	14,644	4,316	10,328					29.47%	70.53%						(2)
Chemicals	24,433	24,433						100.00%							(1)
Transmission and distribution:															
Salaries and wages	281,711	30,143	53,722	\$128,686	\$62,906		\$6,254	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Purchased power	11,971	1,281	2,283	5,468	2,673		266	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Materials and supplies	152,663	16,335	29,113	69,736	34,090		3,389	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Repairs and maintenance	268,100	28,687	51,127	122,467	59,867		5,952	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Contractual services	85,159	9,112	16,240	38,900	19,016		1,891	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Fuel	45,542	4,873	8,685	20,803	10,170		1,011	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Other	38,778	4,149	7,395	17,714	8,659		861	10.70%	19.07%	45.68%	22.33%			2.22%	(3)
Customer accounts:															
Salaries and wages	63,038				\$63,038			100.00%							(4)
Administrative and general:															
Salaries and wages	123,913	16,158	33,419	36,655	17,930	17,967	1,784	13.04%	26.97%	29.58%	14.47%	14.50%	1.44%	(5)	
Employee pensions and benefits	423,110	55,174	114,113	125,155	61,224	61,351	6,093	13.04%	26.97%	29.58%	14.47%	14.50%	1.44%	(6)	
Purchased power	11,209	1,806	2,776	3,709	1,814	924	180	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Office supplies	22,102	3,561	5,474	7,314	3,576	1,821	356	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Insurance	78,934	20,602	40,359	11,690	5,715	0	568	26.10%	51.13%	14.81%	7.24%		0.72%	(8)	
Contractual services	2,683	432	665	888	434	221	43	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Postage	21,678	3,492	5,370	7,173	3,508	1,786	349	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Taxes	44,218	7,124	10,953	14,632	7,154	3,644	711	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Telephone	8,539	1,376	2,115	2,825	1,382	704	137	16.11%	24.77%	33.09%	16.18%	8.24%	1.61%	(7)	
Total operating expenses	\$2,030,047	\$367,622	\$567,191	\$613,815	\$300,118	\$151,456	\$29,845								

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

**ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE DISBURSEMENTS
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.

	<u>Water Treatment Plant</u>	<u>%</u>
Average day demand	\$5,798,505	29.47%
Maximum day extra capacity	<u>13,877,454</u>	<u>70.53%</u>
Totals	<u><u>\$19,675,959</u></u>	<u><u>100.00%</u></u>

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

	<u>Transmission and Distribution Plant</u>	<u>%</u>
Average day demand	\$1,070,865	10.70%
Maximum day extra capacity	1,908,833	19.07%
Maximum hour extra capacity	4,571,667	45.68%
Meters and services	2,234,361	22.33%
Direct fire protection	<u>222,145</u>	<u>2.22%</u>
Totals	<u><u>\$10,007,871</u></u>	<u><u>100.00%</u></u>

(4) Allocated 100% to billing and collecting.

(5) Allocated pro rata based upon all other payroll.

(6) Allocated pro rata based upon total payroll.

(7) Allocated in ratio to all other functionalized disbursements exclusive of purchased power and chemicals.

(8) Allocated pro rata based upon utility plant.

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

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

UNIT COSTS OF SERVICE
(12 months ended 8/31/2017)

	Net Pro Forma Revenue Requirements	Allocable To All Customers					Direct Fire Protection Service Equiv. Hydrants	Ref
		Base (1,000's of gallons)	Extra Capacity		Customer Costs			
			Maximum Day	Maximum Hour	Meters and Services Equiv. Meters	Billing and Collecting Bills		
<u>Units of Service</u>		<u>553,770.8</u>	<u>3,630.9</u>	<u>4,021.2</u>	<u>8,414</u>	<u>81,842</u>	<u>768</u>	(1)
<u>Pro Forma Cost of Service</u>								
Operation and maintenance disbursements	\$2,030,047	\$367,622	\$567,191	\$613,815	\$300,118	\$151,456	\$29,845	(2)
Additional receipts tax	20,395	3,285	5,052	6,749	3,300	1,681	328	(3)
Debt service	1,621,796	423,289	829,224	240,188	117,418		11,677	(4)
Debt service reserve	180,149	47,019	92,110	26,680	13,043		1,297	(4)
Replacements and improvements	639,887	167,011	327,174	94,767	46,328		4,607	(4)
Total Cost of Service	4,492,274	1,008,226	1,820,751	982,199	480,207	153,137	47,754	
Less interest income	(4,640)	(840)	(1,296)	(1,404)	(686)	(346)	(68)	(5)
Less other receipts	(51,404)	(9,309)	(14,362)	(15,542)	(7,600)	(3,835)	(756)	(5)
Net cost of service	<u>\$4,436,230</u>	<u>\$998,077</u>	<u>\$1,805,093</u>	<u>\$965,253</u>	<u>\$471,921</u>	<u>\$148,956</u>	<u>\$46,930</u>	
Total unit cost of service		<u>\$1.8023</u>	<u>\$497.1475</u>	<u>\$240.0410</u>	<u>\$56.0876</u>	<u>\$1.8200</u>	<u>\$61.1068</u>	

(1) As presented on pages 22.

(2) See page 25.

(3) Allocated pro rata based upon the allocation of Taxes shown on page 25.

(4) Allocated in ratio to plant values, see page 23.

(5) Allocated in ratio to operation and maintenance disbursements.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

COST OF SERVICE ALLOCATED TO CUSTOMER CLASS

(12 months ended 8/31/2017)

Total Costs of Service	Allocable To All Customers					Direct Fire Protection Service Equiv. Hydrants
	Base	Extra Capacity		Customer Costs		
		Maximum Day	Maximum Hour	Meters and Services Equiv. Meters	Billing and Collecting Bills	
	(-----1,000's of Gallons-----)					
Unit Costs of Service (1)	\$1.8023	\$497.1475	\$240.0410	\$56.0876	\$1.8200	\$61.1068
<u>Allocated Costs of Service:</u>						
Residential:						
Units of service	347,751.5	2,095.9	2,000.7	7,008.0	77,563.0	
Cost	\$2,683,202	\$626,753	\$1,041,971	\$480,250	\$393,062	\$141,166
Small Commercial:						
Units of service	72,847.2	419.2	419.1	951.0	4,045.0	
Cost	501,000	\$131,293	\$208,404	\$100,601	\$53,339	\$7,363
Large Commercial:						
Units of service	133,172.1	875.8	401.4	455.0	234.0	
Cost	797,733	\$240,031	\$435,402	\$96,353	\$25,520	\$427
Fire Protection:						
Units of service		240.0	1,200.0			768
Cost	454,295	\$119,316	\$288,049			\$46,930
Total allocated cost of service	<u>\$4,436,230</u>	<u>\$998,077</u>	<u>\$1,805,093</u>	<u>\$965,253</u>	<u>\$471,921</u>	<u>\$148,956</u>
				<u>\$46,930</u>		

(1) See page 22.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

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 to 3/4 inch meter	1.0	\$4.6740	\$4.6740	\$1.8200	\$6.4940	\$6.50
1 inch meter	2.5	4.6740	11.6850	1.8200	13.5050	13.50
1 1/2 inch meter	5.0	4.6740	23.3700	1.8200	25.1900	25.20
2 inch meter	8.0	4.6740	37.3920	1.8200	39.2120	39.20
3 inch meter	15.0	4.6740	70.1100	1.8200	71.9300	71.95
4 inch meter	25.0	4.6740	116.8500	1.8200	118.6700	118.65
6 inch meter	50.0	4.6740	233.7000	1.8200	235.5200	235.50
8 inch meter	80.0	4.6740	373.9200	1.8200	375.7400	375.75

(1) Calculated as follows:

Annual charge per equivalent meter (page 27)	\$56.0876
Divided by 12 months	<u>12</u>
Monthly charge per equivalent meter	<u><u>\$4.6740</u></u>

(2) See page 27.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**CALCULATION OF FIRE PROTECTION CHARGES BASED UPON
ALLOCATED COST OF SERVICE**

Automatic Sprinkler Charges:

<u>Size of Connection</u>	<u>Equivalency Ratio*</u>	<u>Rate for 6 inch Connection</u>	<u>Adjusted Rates** (Rounded)</u>
1 inch connection	0.02778	\$592.00	\$16.45
1 1/4 inch connection	0.04340	592.00	25.69
1 1/2 inch connection	0.06250	592.00	37.00
2 inch connection	0.11111	592.00	65.78
2 1/2 inch connection	0.13889	592.00	82.22
3 inch connection	0.25000	592.00	148.00
4 inch connection	0.44444	592.00	263.11
6 inch connection	1.00000	592.00	592.00
8 inch connection	1.77778	592.00	1,052.45
10 inch connection	2.77778	592.00	1,644.45
12 inch connection	4.00000	592.00	2,368.00
Private hydrants	1.00000	592.00	592.00
Public hydrants	1.00000	592.00	592.00

* Reflects sum of the squares methodology.

** Rate for 6 inch equivalent connection times equivalency ratio.

Fire Hydrants:

Total costs to be recovered from fire protection, see page 28.	\$454,295
Divide by 6 inch equivalent fire hydrant connections, see page 21.	<u>768</u>
Annual charge per equivalent connection	<u><u>\$591.53</u></u>
Use (Rounded)	<u><u>\$592.00</u></u>

Allocation Public / Private Fire Protection:

Public fire hydrant equivalent connections (682 @ \$592)	\$403,744
Private fire hydrant equivalent connections (86 @ \$592)	<u>50,912</u>
Total	<u><u>\$454,656</u></u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

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

			Percent of Use	Billing Determinants Annual Consumption (1,000's of Gals)	Bills	Allocated Cost of Service Rates	Projected Receipts Under Adjusted Rates
Residential:							
Service Charge:							
5/8 - 3/4	inch meter				74,575	\$6.50	\$484,738
1	inch meter				2,533	13.50	34,196
1 1/2	inch meter				154	25.20	3,881
2	inch meter				301	39.20	11,799
Volume Charge Per 1,000 Gallons:							
First	20,000	Gallons	91.27%	317,386.6		6.50	2,063,013
Next	180,000	Gallons	7.96%	27,665.1		6.05	167,374
Over	200,000	Gallons	0.77%	2,699.8		4.86	13,121
Sub-totals			100.00%	347,751.5	77,563		2,778,122
Small Commercial:							
Service Charge:							
5/8 - 3/4	inch meter				2,178	\$6.50	\$14,157
1	inch meter				891	13.50	12,029
1 1/2	inch meter				283	25.20	7,132
2	inch meter				693	39.20	27,166
Volume Charge:							
First	20,000	Gallons	58.99%	42,975.8		6.50	279,343
Next	180,000	Gallons	32.19%	23,451.2		6.05	141,880
Over	200,000	Gallons	8.82%	6,420.2		4.86	31,202
Sub-totals			100.00%	72,847.2	4,045		512,909
Large Commercial:							
Service Charge:							
3	inch meter				145	71.95	\$10,433
4	inch meter				56	118.65	6,644
6	inch meter				33	235.50	7,772
Volume Charge:							
First	20,000	Gallons	2.88%	3,829.4		6.50	24,891
Next	180,000	Gallons	24.06%	32,036.1		6.05	193,818
Over	200,000	Gallons	73.06%	97,306.6		4.86	472,910
Sub-totals			100.00%	133,172.1	234		691,619
Sub-total carried forward to next page							<u>\$3,982,650</u>

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

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

	<u>Percent of Use</u>	<u>Billing Determinants</u>		<u>Allocated Cost of Service Rates</u>	<u>Projected Receipts Under Adjusted Rates</u>
		<u>Annual Consumption</u>	<u>Bills</u>		
		(1,000's of Gals)			
Sub-total carried forward from previous page					\$3,982,650
Fire protection:					
1 1/2 inch fire line			1	\$37.00	37
2 inch fire line			14	65.78	921
4 inch fire line			16	263.11	4,210
6 inch fire line			40	592.00	23,680
8 inch fire line			8	1,052.45	8,420
Private hydrants			23	592.00	13,616
Public hydrants			682	592.00	403,744
			<u>784</u>		<u>454,628</u>
Sub-total			<u>784</u>		<u>454,628</u>
Total		<u>553,770.8</u>	<u>82,626</u>		<u>\$4,437,278</u>
Control					<u>\$4,436,230</u>
Variance					<u>\$1,048</u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

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

<u>Customer Classification</u>	<u>Cost of Service</u>	<u>Normalized Receipts Under Existing Rates</u>	<u>Increase/(Decrease)</u>		<u>Cost of Service</u>	<u>Receipts Under Adjusted Rates</u>	<u>Variance Between Adjusted Receipts and Cost of Service</u>	
			<u>%</u>	<u>Amount</u>			<u>%</u>	<u>Amount</u>
Residential	\$2,683,202	\$2,048,415	30.99%	\$634,787	\$2,683,202	\$2,778,122	3.54%	\$94,920
Small Commercial	501,000	280,757	78.45%	220,243	501,000	512,909	2.38%	11,909
Large Commercial	797,733	340,631	134.19%	457,102	797,733	691,619	-13.30%	(106,114)
Fire Protection	454,295	289,256	57.06%	165,039	454,295	454,628	0.07%	333
Totals	<u>\$4,436,230</u>	<u>\$2,959,059</u>	<u>49.92%</u>	<u>\$1,477,171</u>	<u>\$4,436,230</u>	<u>\$4,437,278</u>	<u>0.02%</u>	<u>\$1,048</u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

SCHEDULE OF PRESENT AND PROPOSED RATES AND CHARGES

A. Metered User Block Schedule

For use of and service rendered by the Waterworks system, based upon the use of water supplied by said Waterworks system.

<u>Monthly Water Usage</u>			<u>Rate Per 1,000 Gallons</u>	
			<u>Current (1)</u>	<u>Proposed</u>
First	2,500	Gallons	\$6.90	
Next	7,500	Gallons	3.69	
Next	10,000	Gallons	3.48	
Next	30,000	Gallons	2.95	
Next	250,000	Gallons	2.49	
All Over	300,000	Gallons	2.17	
First	20,000	Gallons		\$6.50
Next	180,000	Gallons		6.05
All Over	200,000	Gallons		4.86

Minimum Charge:

<u>Meter Size</u>		<u>Gallons Allowed</u>	<u>Per Month</u>
			<u>Current (1)</u>
5/8 - 3/4	inch meter	2,500	\$17.25
1	inch meter	4,500	24.63
1 1/2	inch meter	11,270	49.34
2	inch meter	20,900	82.38
3	inch meter	48,810	164.71
4	inch meter	115,420	331.12
6	inch meter	232,400	622.40

B. Service Charge

In addition to the metered user block rate, each user shall pay a monthly service charge in accordance with the following applicable size of meter installed.

<u>Meter Size</u>		<u>Per Month</u>
		<u>Proposed</u>
5/8 - 3/4	inch meter	\$6.50
1	inch meter	13.50
1 1/2	inch meter	25.20
2	inch meter	39.20
3	inch meter	71.95
4	inch meter	118.65
6	inch meter	235.50
8	inch meter	375.75

(1) Present rates and charges pursuant to IURC Order in Cause No. 43658, dated January 6, 2010 effective May 27, 2011.

(Continued on next page)

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

SCHEDULE OF PRESENT AND PROPOSED RATES AND CHARGES

<u>C. Sales for Resale</u>	<u>Rate Per 1,000 Gallons</u>	
	<u>Current (1)</u>	<u>Proposed</u>
Flow Rate	\$2.25	\$3.40

D. Fire Protection Charges:

Public Fire Protection Charges:

<u>Meter Size</u>	<u>Per Month</u>	
	<u>Current (1)</u>	<u>Proposed</u>
5/8 - 3/4 inch meter	\$3.14	\$4.00
1 inch meter	3.99	10.00
1 1/2 inch meter	5.13	20.00
2 inch meter	8.27	32.00
3 inch meter	31.36	60.00
4 inch meter	39.91	100.00
6 inch meter	59.86	200.00

Private Fire Protection Charges:

	<u>Per Year</u>	
	<u>Current (1)</u>	<u>Proposed</u>
Private Hydrant - per hydrant	\$474.15	\$592.00
Automatic sprinklers:		
1 inch connection	\$13.17	\$16.45
1 1/4 inch connection	20.58	25.69
1 1/2 inch connection	29.64	37.00
2 inch connection	52.69	65.78
3 inch connection	118.54	148.00
4 inch connection	210.74	263.11
6 inch connection	474.15	592.00
8 inch connection	842.91	1,052.45

E. System Development Charge

<u>Meter Size</u>	<u>Per Connection</u>	
	<u>Current (2)</u>	<u>Proposed</u>
5/8 - 3/4 inch connection	\$464.00	\$1,470
1 inch connection	1,160.00	3,675
1 1/2 inch connection	2,320.00	7,350
2 inch connection	3,712.00	11,760
3 inch connection	6,960.00	22,050
4 inch connection	11,600.00	36,750
6 inch connection	23,200.00	73,500
8 inch connection	37,120.00	117,600

- (1) Present rates and charges pursuant to IURC Order in Cause No. 43658, dated January 6, 2010 effective May 27, 2011.
- (2) Present system development charges pursuant to IURC Order in Cause No. 42856, dated January 31, 2006, as revised and effective October 2, 2007.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

COMPARISON OF PRESENT AND PROPOSED MONTHLY BILLS
AT SELECTED USAGE AMOUNTS BASED UPON ADJUSTED COST OF SERVICE

<u>Meter Size</u>	<u>Monthly Water Usage (Gallons)</u>	<u>Existing Rates*</u>	<u>Proposed Rates*</u>	<u>Increase</u>
5/8-3/4 inch meter	0	\$20.39	\$10.50	(\$9.89)
	1,000	20.39	17.00	(3.39)
	2,000	20.39	23.50	3.11
	4,000	25.93	36.50	10.57
	6,000	33.31	49.50	16.19
	8,000	40.69	62.50	21.81
	10,000	48.07	75.50	27.43
	12,000	55.03	88.50	33.47
1 inch meter	5,000	30.47	56.00	25.53
	10,000	48.92	88.50	39.58
	20,000	83.72	153.50	69.78
	25,000	98.47	183.75	85.28
	50,000	172.22	335.00	162.78
3 inch meter	50,000	199.59	443.45	243.86
	150,000	448.59	1,048.45	599.86
	200,000	573.09	1,350.95	777.86
	500,000	1,256.09	2,808.95	1,552.86
6 inch meter	150,000	477.09	1,352.00	874.91
	200,000	601.59	1,440.30	838.71
	500,000	1,284.59	3,112.50	1,827.91
	1,000,000	2,369.59	5,542.50	3,172.91
	5,000,000	11,049.59	24,982.50	13,932.91

* Includes monthly fire protection charge.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
Chandler, Indiana

CALCULATION OF PUBLIC FIRE PROTECTION CHARGE

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

CALCULATION OF EQUIVALENT CONNECTIONS

<u>Meter Size</u>	<u>Annual Bills (1)</u>	<u>Average Connections</u>	<u>Ratio to 5/8" Meter</u>	<u>Total Equivalent Connections</u>
5/8-3/4 inch meter	76,753	6,397	1.0	6,397.0
1 inch meter	3,424	285	2.5	712.5
1 1/2 inch meter	437	37	5.0	185.0
2 inch meter	994	83	8.0	664.0
3 inch meter	145	12	15.0	180.0
4 inch meter	56	5	25.0	125.0
6 inch meter	33	3	50.0	150.0
Totals	<u>81,842</u>	<u>6,822</u>		<u>8,413.5</u>

(1) Per 12 months billing 9/1/2016 - 8/31/2017.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**CALCULATION OF PROPOSED PUBLIC FIRE PROTECTION
CHARGE PER EQUIVALENT CONNECTION**

Total number of municipal hydrants (1)	682
Times proposed annual charge per hydrant (2)	<u>\$592.00</u>
Total fire protection receipts to be recovered	403,744
Divided by total equivalent connections	<u>8,413.5</u>
Proposed annual charge per equivalent connection	<u><u>\$48.00</u></u>
Proposed monthly charge per equivalent connection	<u><u>\$4.00</u></u>

(1) As provided by utility superintendent.

(2) See page 30.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**ALLOCATION OF ANNUAL PUBLIC FIRE
PROTECTION RECEIPTS BY METER SIZE**

<u>Meter Size</u>	<u>Proposed Annual Charge Per Equivalent Connection</u>	<u>Equivalency Factor</u>	<u>Proposed Annual Charge Per Connection</u>	<u>Total Number Of Connections</u>	<u>Annual Receipts Required</u>
5/8" - 3/4"	\$48.00	1.0	\$48.00	6,397	\$307,056
1"	48.00	2.5	120.00	285	34,200
1 1/4"	48.00	4.0	192.00	0	0
1 1/2"	48.00	5.0	240.00	37	8,880
2"	48.00	8.0	384.00	83	31,872
3"	48.00	15.0	720.00	12	8,640
4"	48.00	25.0	1,200.00	5	6,000
6"	48.00	50.0	2,400.00	3	7,200
8"	48.00	80.0	3,840.00	0	0
10"	48.00	115.0	5,520.00	0	0
12"	48.00	215.0	10,320.00	0	0
Estimated total receipts					403,848
Annual fire protection receipts to be recovered (page 30)					403,744
Variance					\$104

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

SUMMARY OF PROPOSED MONTHLY PUBLIC
FIRE PROTECTION CHARGES

<u>Meter Size</u>	<u>Equivalency Factor</u>	<u>Proposed Annual Charge</u>	<u>Divided by 12 months</u>	<u>Proposed Monthly Charge</u>
5/8"	1.0	\$48.00	12	\$4.00
1"	2.5	120.00	12	10.00
1 1/4"	4.0	192.00	12	16.00
1 1/2"	5.0	240.00	12	20.00
2"	8.0	384.00	12	32.00
3"	15.0	720.00	12	60.00
4"	25.0	1,200.00	12	100.00
6"	50.0	2,400.00	12	200.00
8"	80.0	3,840.00	12	320.00
10"	115.0	5,520.00	12	460.00
12"	215.0	10,320.00	12	860.00

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
Chandler, Indiana

SYSTEM DEVELOPMENT CHARGE

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

CALCULATION OF SYSTEM DEVELOPMENT CHARGE PER EDU
(Equity Buy-In Methodology)

<u>Estimated Utility Plant in Service</u>	<u>8/31/2017 Original Cost</u>	<u>Accumulated Depreciation</u>	<u>Net Cost</u>
Land and Land Rights	682,001		
Wells and Springs	396,872		
Electric Pumping Equipment	107,177		
Treatment Equipment	1,864,843		
Structures and Improvements	17,811,116		
Reservoirs and Standpipes	2,731,080		
Transmission and Distribution	4,810,751		
Meter Installations	2,159,663		
Fire Hydrants	216,173		
Structures and Improvements	335,195		
Office Furniture Equipment	97,775		
Transportation Equipment	538,802		
Tools and Garage Equipment	30,319		
Power Operated Equipment	615,915		
Communications Equipment	26,452		
Computer Equipment	143,180		
Other Tangible Plant	(3,147)		
1/1/2017 - 8/31/2017 additions	114,436		
Plus capitalized items (pg. 12)	554,399		
	<u>554,399</u>		
Sub Total	<u>\$33,233,002</u>	<u>(\$8,043,067)</u>	<u>\$25,189,935</u>
Net Investment in Plant			\$25,189,935
Less outstanding debt			(7,609,000)
Less contributions in aid of construction			<u>(2,410,799)</u>
Total Net Equity Investment			15,170,136
Divide by Current Avg. Annual Demand in million gallons (1.52MGD x 365 days)			<u>554.8</u>
Equity Investment per millions gallons currently used			<u>\$27,343</u>
Equity Investment per thousand gallons currently used			\$27.34
Times gallons used by typical residential user (in 1,000 gallons per year - 4.48gp month x 12 months)			<u>53.76</u>
System Development Charge per Equivalent Dwelling Unit ("EDU")			<u>\$1,470</u>

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**CALCULATION OF PROPOSED SYSTEM
DEVELOPMENT CHARGES BY METER SIZE**

<u>Meter Size</u>	<u>SDC Charge Per EDU (1)</u>	<u>5/8 inch Equivalency Factor</u>	<u>Meter Cost Per Unit</u>
5/8 to 3/4 inch meter	\$1,470	1.0	\$1,470
1 inch meter	1,470	2.5	3,675
1 1/2 inch meter	1,470	5.0	7,350
2 inch meter	1,470	8.0	11,760
3 inch meter	1,470	15.0	22,050
4 inch meter	1,470	25.0	36,750
6 inch meter	1,470	50.0	73,500
8 inch meter	1,470	80.0	117,600

(1) See page 41.

(See Accountant's Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY
Chandler, Indiana

SUPPLEMENTARY HISTORICAL DATA

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**COMPARATIVE SCHEDULE OF SELECTED FINANCIAL
INFORMATION ARISING FROM CASH TRANSACTIONS**

	As of			
Cash and Cash Equivalents:	12/31/2014	12/31/2015	12/31/2016	8/31/2017
Operating and maintenance fund	\$759,019	\$754,101	\$313,179	\$285,364
Sinking fund:				
Bond and interest	240,076	240,385	108,862	69,698
Debt service reserve	700,978	719,801	719,278	721,895
Meter deposit fund	309,727	322,182	333,807	337,566
Depreciation fund	902	902	902	902
System development fund	277,090	324,186	417,218	203,018
Total Cash and Cash Equivalents	\$2,287,792	\$2,361,557	\$1,893,246	\$1,618,443
<u>Bonded Indebtedness:</u>				
Waterworks Refunding Revenue Bonds of 2005	\$965,000	\$735,000		
Waterworks Revenue Bonds of 2007	4,695,000	4,560,000		
Waterworks Revenue Bonds of 2010	3,101,000	3,081,000	\$3,022,000	\$3,000,000
Waterworks Refunding Revenue Bonds of 2016			4,630,000	4,480,000
Totals	\$8,761,000	\$8,376,000	\$7,652,000	\$7,480,000

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**COMPARATIVE SCHEDULE OF CASH RECEIPTS
AND DISBURSEMENTS**

	Calendar Year			Twelve Months Ended 8/31/2017
	2014	2015	2016	
Operating Receipts:				
Metered sales	\$2,536,093	\$2,491,607	\$2,516,864	\$2,592,552
Fire protection	173,713	275,835	284,132	288,668
Other operating receipts	55,247	44,462	39,156	51,404
Total Operating Receipts	<u>2,765,053</u>	<u>2,811,904</u>	<u>2,840,152</u>	<u>2,932,624</u>
Operating Disbursements:				
Salaries and wages	474,527	515,817	494,723	534,587
Employee benefits	280,036	333,038	324,763	360,947
Fuel and purchased power	178,103	172,188	183,401	164,806
Chemicals	21,553	19,922	33,271	24,433
Materials and supplies	165,977	138,431	114,492	180,663
Source of supply	30	16,253	84,437	62,260
Treatment operation and maintenance	52,941	26,410	22,125	18,235
Transmission operation and maintenance	-	-	-	275,812
Office supplies	46,528	43,429	28,289	36,125
Contractual services	137,018	124,225	176,870	607,967
Transportation	98,279	70,390	49,108	45,542
Insurance	68,197	68,703	80,005	78,934
Utility receipts tax	40,659	39,384	40,305	50,272
Other operating disbursements	33,539	40,664	39,057	50,000
Total Operating Disbursements	<u>1,597,387</u>	<u>1,608,854</u>	<u>1,670,846</u>	<u>2,490,583</u>
Net Operating Receipts	<u>1,167,666</u>	<u>1,203,050</u>	<u>1,169,306</u>	<u>442,041</u>
Non-Operating Receipts:				
Interest	1,353	1,452	2,715	4,640
Meter deposits (net)	10,665	12,455	11,625	4,979
Tap fees	72,144	61,655	105,785	108,886
System development fees	56,376	47,096	93,032	116,424
Other non-operating receipts	3,918	3,191	1,761	21,051
Bond proceeds	-	-	5,010,000	5,010,000
Refunds and reimbursements	-	-	15,498	-
Totals	<u>144,456</u>	<u>125,849</u>	<u>5,240,416</u>	<u>5,265,980</u>
Non-Operating Disbursements:				
Debt service	719,283	718,237	718,328	587,899
Payoff 2005 Bonds and 2007 Bonds	-	-	5,003,956	5,003,956
Costs of issuance	-	-	104,600	104,600
Capital improvements	305,517	536,896	1,051,149	224,679
Totals	<u>1,024,800</u>	<u>1,255,133</u>	<u>6,878,033</u>	<u>5,921,134</u>
Increase (Decrease) In Cash and Cash Equivalents	287,322	73,766	(468,311)	(213,113)
Beginning Cash and Cash Equivalents	<u>2,000,469</u>	<u>2,287,791</u>	<u>2,361,557</u>	<u>1,831,556</u>
Ending Cash and Cash Equivalents	<u>\$2,287,791</u>	<u>\$2,361,557</u>	<u>\$1,893,246</u>	<u>\$1,618,443</u>

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

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

<u>Cash and Investments:</u>	<u>Account Balance at 8/31/2017</u>	<u>Minimum Balance Required</u>	<u>Ref.*</u>	<u>Variance</u>
Operating	\$285,364	\$338,409	(1)	(\$53,045)
Sinking fund:				
Bond and interest account	69,698	-	(2)	69,698
Debt service reserve account	721,895	719,042	(3)	2,853
Customer Deposits	337,566	337,566	(4)	-
Depreciation/Improvement	902	-	(5)	902
System Development Fund	<u>203,018</u>	<u>203,018</u>	(4)	<u>-</u>
Totals	<u>\$1,618,443</u>	<u>\$1,598,035</u>		<u>\$20,408</u>

* Minimum balance required by Bond Ordinance No. 2016-09 Amended

- (1) The balance maintained in this fund shall be sufficient to pay expenses of operation, repair and maintenance for the next succeeding two calendar months.

Pro Forma Operating Disbursements	\$2,030,047
Times factor for 2 months (2 months/12 months)	<u>16.67%</u>
Minimum balance required	<u>\$338,409</u>

- (2) The balance of this account should be equal to the accrued monthly transfers of 1/6 of the interest on all outstanding bonds payable on the then next succeeding interest payment date and 1/6 of the principal on all outstanding bonds payable on the then next succeeding principal payment date.

	<u>Amount</u>	<u>Months Factor</u>	<u>Balance</u>
<u>2010 Bonds</u>			
Principal due 3/1/2018	*\$20,000.00	x 0/6	\$ -
Interest due 3/1/2018	*\$43,493.40	x 0/6	-
<u>2016 Bonds</u>			
Principal due 3/1/2018	*\$230,000.00	x 0/6	-
Interest due 3/1/2018	*\$42,827.50	x 0/6	<u>-</u>
Minimum balance required			<u>\$ -</u>

*Bond payments due on 9/1/2017 were made prior to 8/31/2017.

- (3) The debt service reserve balance in this account should be equal to the maximum annual debt service (\$719,042) on the Outstanding Bonds.

Minimum balance required	<u>\$719,042</u>
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- (4) Funds fully restricted.

- (5) Funds not restricted.

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**SCHEDULE OF AMORTIZATION OF \$2,979,000 PRINCIPAL AMOUNT OF
OUTSTANDING WATERWORKS REVENUE BONDS OF 2010**

Principal payable semi-annually March 1st and September 1st.

Interest payable semi-annually March 1st and September 1st.

Interest rate as indicated

Payment Date	Principal Balance (In \$1,000's)	Interest Rate (%)	Debt Service			Bond Year Total
			Principal (In \$1,000's)	Interest (-----In Dollars-----)	Total	
03/01/18	\$2,979	2.92	\$20	\$43,493.40	\$63,493.40	
09/01/18	2,959	2.92	19	43,201.40	62,201.40	\$125,694.80
03/01/19	2,940	2.92	19	42,924.00	61,924.00	
09/01/19	2,921	2.92	19	42,646.60	61,646.60	123,570.60
03/01/20	2,902	2.92	18	42,369.20	60,369.20	
09/01/20	2,884	2.92	18	42,106.40	60,106.40	120,475.60
03/01/21	2,866	2.92	18	41,843.60	59,843.60	
09/01/21	2,848	2.92	18	41,580.80	59,580.80	119,424.40
03/01/22	2,830	2.92	18	41,318.00	59,318.00	
09/01/22	2,812	2.92	18	41,055.20	59,055.20	118,373.20
03/01/23	2,794	2.92	18	40,792.40	58,792.40	
09/01/23	2,776	2.92	14	40,529.60	54,529.60	113,322.00
03/01/24	2,762	2.92	14	40,325.20	54,325.20	
09/01/24	2,748	2.92	15	40,120.80	55,120.80	109,446.00
03/01/25	2,733	2.92	10	39,901.80	49,901.80	
09/01/25	2,723	2.92	11	39,755.80	50,755.80	100,657.60
03/01/26	2,712	2.92	8	39,595.20	47,595.20	
09/01/26	2,704	2.92	9	39,478.40	48,478.40	96,073.60
03/01/27	2,695	2.92	320	39,347.00	359,347.00	
09/01/27	2,375	2.92	325	34,675.00	359,675.00	719,022.00
03/01/28	2,050	2.92	330	29,930.00	359,930.00	
09/01/28	1,720	2.92	334	25,112.00	359,112.00	719,042.00
03/01/29	1,386	2.92	339	20,235.60	359,235.60	
09/01/29	1,047	2.92	344	15,286.20	359,286.20	718,521.80
03/01/30	703	2.92	349	10,263.80	359,263.80	
09/01/30	354	2.92	354	5,168.40	359,168.40	718,432.20
Totals			<u>\$2,979</u>	<u>\$923,055.80</u>	<u>\$3,902,055.80</u>	<u>\$3,902,055.80</u>

Average annual principal and interest payment for the five bond years ending September 1, 2024.

\$116,208.24

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

**SCHEDULE OF AMORTIZATION OF \$4,630,000 PRINCIPAL AMOUNT
OF OUTSTANDING WATERWORKS REFUNDING REVENUE BONDS OF 2016**

Principal payable semi-annually March 1st and September 1st.

Interest payable semi-annually March 1st and September 1st.

Interest rate as indicated

Payment Date	Principal Balance (In \$1,000's)	Interest Rate (%)	Debt Service			Bond Year Total
			Principal (In \$1,000's)	Interest (-----In Dollars-----)	Total	
3/1/2018	\$4,630	1.85	\$230	\$42,827.50	\$272,827.50	
9/1/2018	4,400	1.85	235	40,700.00	275,700.00	\$548,527.50
3/1/2019	4,165	1.85	235	38,526.25	273,526.25	
9/1/2019	3,930	1.85	240	36,352.50	276,352.50	549,878.75
3/1/2020	3,690	1.85	245	34,132.50	279,132.50	
9/1/2020	3,445	1.85	245	31,866.25	276,866.25	555,998.75
3/1/2021	3,200	1.85	250	29,600.00	279,600.00	
9/1/2021	2,950	1.85	250	27,287.50	277,287.50	556,887.50
3/1/2022	2,700	1.85	255	24,975.00	279,975.00	
9/1/2022	2,445	1.85	255	22,616.25	277,616.25	557,591.25
3/1/2023	2,190	1.85	260	20,257.50	280,257.50	
9/1/2023	1,930	1.85	265	17,852.50	282,852.50	563,110.00
3/1/2024	1,665	1.85	270	15,401.25	285,401.25	
9/1/2024	1,395	1.85	270	12,903.75	282,903.75	568,305.00
3/1/2025	1,125	1.85	275	10,406.25	285,406.25	
9/1/2025	850	1.85	280	7,862.50	287,862.50	573,268.75
3/1/2026	570	1.85	285	5,272.50	290,272.50	
9/1/2026	285	1.85	285	2,636.25	287,636.25	577,908.75
Totals			<u>\$4,630</u>	<u>\$421,476.25</u>	<u>\$5,051,476.25</u>	<u>\$5,051,476.25</u>

Average annual principal and interest payment
for the five bond years ending September 1, 2024.

\$560,378.50

(See Accountants' Report)

CHANDLER (INDIANA) MUNICIPAL WATER UTILITY

SCHEDULE OF COMBINED BOND AMORTIZATION

<u>Payment Date</u>	<u>Outstanding 2010 Bonds</u>	<u>Outstanding 2016 Bonds</u>	<u>Bond Year Total</u>
3/1/18	\$63,493.40	\$272,827.50	
9/1/18	62,201.40	275,700.00	\$674,222.30
3/1/19	61,924.00	273,526.25	
9/1/19	61,646.60	276,352.50	673,449.35
3/1/20	60,369.20	279,132.50	
9/1/20	60,106.40	276,866.25	676,474.35
3/1/21	59,843.60	279,600.00	
9/1/21	59,580.80	277,287.50	676,311.90
3/1/22	59,318.00	279,975.00	
9/1/22	59,055.20	277,616.25	675,964.45
3/1/23	58,792.40	280,257.50	
9/1/23	54,529.60	282,852.50	676,432.00
3/1/24	54,325.20	285,401.25	
9/1/24	55,120.80	282,903.75	677,751.00
3/1/25	49,901.80	285,406.25	
9/1/25	50,755.80	287,862.50	673,926.35
3/1/26	47,595.20	290,272.50	
9/1/26	48,478.40	287,636.25	673,982.35
3/1/27	359,347.00		
9/1/27	359,675.00		719,022.00
3/1/28	359,930.00		
9/1/28	359,112.00		719,042.00
3/1/29	359,235.60		
9/1/29	359,286.20		718,521.80
3/1/30	359,263.80		
9/1/30	359,168.40		718,432.20
Totals	<u>\$3,902,055.80</u>	<u>\$5,051,476.25</u>	<u>\$8,953,532.05</u>

Average annual principal and interest payment
for the five bond years ending September 1, 2024

\$676,586.74

(See Accountants' Report)