Petitioner's Exhibit No. 3

FILED August 28, 2020 INDIANA UTILITY REGULATORY COMMISSION

COLUMBUS CITY UTILITIES

INDIANA UTILITY REGULATORY COMMISSION

CAUSE NO. 45427

DIRECT TESTIMONY

OF

DOUGLAS L. BALDESSARI, CPA

SPONSORING ATTACHMENT DLB-1 AND DLB-2

Columbus City Utilities

Cause No. 45427

Direct Testimony of Douglas L. Baldessari, CPA

Introduction

1	Q.	Please state your name and business address.
2	A.	My name is Douglas L. Baldessari and my business address is 8365 Keystone Crossing,
3		Suite 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 Baker Tilly Municipal
7		Advisors, LLC ("BTMA"), where in Indiana, Michigan and Ohio was formerly known as
8		H.J. Umbaugh & Associates ("Umbaugh"), Certified Public Accountants, LLP.
9		
10	Q.	Can you describe your firm and its area of expertise?
11	A.	BTMA is a wholly-owned subsidiary of Baker Tilly US, LLP. BTMA focuses
12		exclusively on providing services to public sector organizations, including municipal
13		utilities as independent municipal advisors and utility consultants. BTMA brings more
14		than 65 years of experience in solid financial consulting and planning for governmental
15		units, not-for-profit corporations and special districts and has resulted in completed
16		projects and improved management and operations for utilities, municipalities, counties,
17		schools, libraries, and other governmental units. A large part of our practice involves
10		financial studies in connection with changes in utility rates and the financial planning

associated with the acquisition of capital such as tax-exempt and taxable bonds and notes
 and other evidences of indebtedness.

- 3
- 4

Q. What is your educational experience?

A. In May 1991, I received a Bachelor of Science Degree in Finance from the University of
Connecticut, School of Business, Storrs, Connecticut. In August 2001, I received my
Master of Professional Accountancy from Indiana University Kelly School of Business,
Indianapolis, Indiana. Since then I have completed various professional courses
sponsored by the American Institute of Certified Public Accountants, Indiana CPA
Society, and American Water Works Association and other professional organizations.

11

12 Q. Please describe your relevant professional experience.

A. I joined Baker Tilly in March 2000 and, in 2002, completed the requirements to become 13 licensed as a Certified Public Accountant in the State of Indiana. I became a Partner with 14 the firm in January of 2013. During the past twenty (20) years with Baker Tilly, I have 15 been involved with many professional engagements including financial studies for 16 municipally-owned water and sewage utilities, not-for-profit water corporations, regional 17 water and sewer districts, and conservancy districts. These studies quite often have 18 19 involved the determination of utility revenue requirements, cost of service studies, and the financial planning associated with the issuance of tax-exempt and taxable bonds and 20 loans. 21

22

23 Q. With what professional organizations are you associated?

1	A.	I am a member of the American Institute of Certified Public Accountants, the American
2		Water Works Association, the Indiana Water Environment Association where I serve as
3		President and the Indiana CPA Society. In addition, our firm is a member of both the
4		Indiana Rural Water Association and the Indiana Water and Wastewater Alliance.
5		
6	Q.	Have you testified before as an expert witness?
7	A.	Yes, I have testified before the Indiana Utility Regulatory Commission on many previous
8		occasions. This testimony has covered the development of appropriate revenue
9		requirements, utility valuation, financing approval and across-the-board and cost of
10		service analysis and rate design.
11		
12	Q.	Have you reviewed the Petition initiating this Cause?
13	A.	Yes, I have.
14		
15	Q.	For what purpose have you been retained?
16	A.	We were retained by the City of Columbus, Indiana ("Petitioner") and Columbus City
17		Utilities ("CCU") to complete a financial study to determine the cost of service rates and
18		charges necessary to support the pro forma revenue requirements and make
19		recommendations regarding changes in Petitioner's present schedule of rates and charges
20		for service for the water utility. We were also hired to assist with the structuring of the
01		long term revenue hands to be used to fund the proposed improvement project
21		long-term revenue bonds to be used to fund the proposed improvement project.
21		long-term revenue bonds to be used to rund the proposed improvement project.

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

1	A.	Yes. Our firm prepared Petitioner's Attachment DLB-1, an Accounting Report on the
2		Proposed Improvement Project Financing and Cost of Service Rate Study dated July 13,
3		2020 summarizing the results of our studies and the accounting services performed for
4		Petitioner.
5		
6	Q.	Was the Accounting Report prepared by you or under your supervision?
7	А.	Yes.
8		
9	Q.	What were the sources of data used to prepare Petitioner's <u>Attachment DLB-1</u> ?
10	А.	The information within the exhibits and schedules contained within Attachment DLB-1
11		came from the unaudited accounting and business records of the Petitioner, the officers
12		and employees of the Petitioner with knowledge of the facts based on their job
13		responsibilities and activities, and other sources which I analyzed in the course of my
14		investigation.
15		
16	Q.	Is this the type of data normally relied on and used in your business for such
17		purposes?
18	A.	Yes.
19		
20	Q.	Would you please explain Petitioner's <u>Attachment DLB-1</u> to the extent not
21		otherwise self-explanatory?
22	А.	The report is divided into six sections. The first section of the report is the accountant's
23		letter, which describes that the type of accounting service provided was a compilation and

1	that the resulting accounting report is a special purpose report for submission to the
2	Indiana Utility Regulatory Commission and is restricted to that purpose only. This letter
3	is incorporated by reference on all the pages of the accounting report.
4	
5	The second section of the report (pages 3 through 9) contains supplemental data,
6	including comparative accrual basis financial statements and account balances.
7	
8	The third section of the report (pages 10 through 30) contains pro forma financial
9	information, including a schedule of estimated project costs and funding, the
10	accompanying bond amortization schedules, and a combined bond amortization schedule.
11	Pages 16 through 19 set forth the various calculations of the Petitioner's pro forma cash
12	operating disbursements. The next 8 pages present a normalization of annual operating
13	revenues for the twelve months ended December 31, 2019, which was the test year used
14	to develop the proposed rates and charges. Page 28 presents a calculation of average
15	annual additions to utility plant and pro forma depreciation expense. Pages 29 through 30
16	summarize the pro forma annual revenue requirements and annual operating revenues
17	included in this cause.
18	
19	The fourth section of the report (pages 31 through 53) presents the cost of service study

20

and resulting rates and charges.

1		The fifth section of the report (pages 54 through 56) contains the calculations of the
2		proposed public fire protection charges. The sixth section of the report (pages 57 and 58)
3		presents a calculation of Petitioner's proposed system development charges ("SDC").
4		
5	Q.	What test period was used in the preparation of your Accounting Report?
6	A.	The test period consists of the twelve months ended December 31, 2019. In my opinion,
7		when the results of this test period are combined with appropriate pro forma adjustments,
8		revenues and expenses represent fairly the current and future operations of the water
9		system. While the test year is a bit older than I would usually recommend, it ended fewer
10		than 270 days before the City filed the petition and case-in-chief in this proceeding. It
11		also avoids the use of any part of 2020 as a test year, which is an issue that the Office of
12		Utility Consumer Counselor ("OUCC") has asked to be addressed in its Verified Petition
13		filed in Cause No. 45380.
14		
15	Q.	Did the results of your analysis indicate that rate adjustments were necessary?
16	А.	Yes. Consistent with the statutory elements that govern the establishment of rates for
17		municipalities in the State of Indiana, BTMA's analysis indicates that an overall increase
18		of approximately 79.5% is justified. In addition, our analysis indicates that the proposed
19		System Development Charge ("SDC") is also warranted. Ordinance 19-2020 attached as
20		Petitioner's Attachment SD-2 to the testimony of Scott Dompke is the action of
21		Petitioner's City Council on our recommendation.
22	Q.	Seventy-nine point five percent (79.5%) seems high. Why must it be so much?

1	A.	The size of the increase by percentage will be deceiving. Currently, an average residential
2		customer only pays under \$12 per month, and so an increase of any appreciable amount
3		will seem large in terms of percentage. After all phases, that same average residential
4		customer will be paying a bill of approximately \$20 per month, which is till
5		comparatively low. Further, it has been nearly 30 years since rates were last increased.
6	Q.	What is the driving need for these rate adjustments?
7	A.	The primary drivers are as follows: (1) the need for the \$22,200,000 aggregate par
8		amount of long-term debt issuance for various capital projects; and (2) the need to
9		provide for the pro forma operation and maintenance requirements. The rates and
10		charges for CCU's customers were last adjusted in 1992, except for the wholesale
11		customers which were last adjusted in 1994.
12		

13 Q. Are any of the projects within the \$22,200,000 bond issue time sensitive?

A. Yes. There was the need to move forward with construction of two new wells in the south 14 wellfield due to issues with certain wells. The issues related to the wells are detailed in 15 the testimony of Jim McNulty. In addition, due to the timing of related road construction, 16 the Jackson-8th-Gladstone project needed to be constructed this year. These projects are 17 being paid from cash on hand. Using the cash on hand for those projects did not leave 18 enough available cash to pay for the other project development engineering fees for the 19 projects included in this rate case which necessitated the issuance of the \$2.5 million 20 Bond Anticipation Notes, Series 2020 ("2020 BANs"). The 2020 BANs were issued on 21 22 June 3, 2020 and will mature on June 3, 2021 which the City desires to roll into a longterm revenue bond issue as close to the date the BANs mature as possible. 23

Q. Did the Water Utility loan the Sewer Utility money to pay for required sewer projects?

Yes. There was the need to move forward with construction of certain improvements to A. 4 the sewage works and other project development costs which the Sewer Utility did not 5 have enough available cash for those improvements and costs. The Water Utility loaned 6 the Sewer Utility \$1.715 million to enable those sewer improvement projects to move 7 8 forward. The Sewer Utility will reimburse the Water Utility the \$1.715 million when the 9 Sewer Utility issues its long-term bond issues anticipated to be in the Spring of 2021. The Sewer Utility has been analyzing its finances and working through rates and charges 10 which were originally anticipated to be implemented in the summer of 2020, but with the 11 financial concerns related to the COVID-19 pandemic, including skyrocketing 12 unemployment, the City did not believe it was prudent to move forward with the sewer 13 rate adjustments at that time. The City could not move forward with the sewer financing 14 without the rate adjustments, which necessitated to loan from the Water Utility to the 15 Sewer Utility. The reimbursement of the \$1.715 million from the Water Utility to the 16 Sewer Utility is factored into the overall financing, reducing the long-term debt required 17 for the Project as defined below. 18

- 19
- 20

Pro Forma Financial Information

21

22 Q. How did you determine the estimated project costs?

1	A.	The estimated project costs are based on engineering and management estimates at the
2		time the cost of service rate and financing report was finalized on July 13, 2020. The
3		projects include various project development costs, new wells, water main replacements
4		and improvements, booster/valve stations improvements, a new water storage tank and
5		improvements to other existing water towers, and project design, scoping and piloting for
6		a future new water treatment plant. These projects, including all financing and other soft
7		costs, are estimated to cost approximately \$25,680,000. At present, the proposed projects
8		are intended to be funded from a combination of \$3,480,000 of available cash on hand
9		(including the repayment from the Sewer Utility) and the balance of \$22,200,000 with a
10		bond issue through the Indiana Drinking Water State Revolving Fund ("SRF").
11	Q.	Have the project cost estimates been refined since the rate report was finalized for
12		the Council?
12 13	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers
12 13 14	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the
12 13 14 15	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for
12 13 14 15 16	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated
12 13 14 15 16 17	A.	 the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated August 24, 2020 prepared by GRW Engineers updated the costs for the storage tanks and
12 13 14 15 16 17 18	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated August 24, 2020 prepared by GRW Engineers updated the costs for the storage tanks and related transmission mains and water boosters/valve stations. The updated GRW
12 13 14 15 16 17 18 19	A.	 the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated August 24, 2020 prepared by GRW Engineers updated the costs for the storage tanks and related transmission mains and water boosters/valve stations. The updated GRW Boundary Report is included as <u>Attachment SD-3</u> to Scott Dompke's testimony. I am
12 13 14 15 16 17 18 19 20	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated August 24, 2020 prepared by GRW Engineers updated the costs for the storage tanks and related transmission mains and water boosters/valve stations. The updated GRW Boundary Report is included as <u>Attachment SD-3</u> to Scott Dompke's testimony. I am including as <u>Attachment DLB-2</u> a summary of the updated project cost estimates to be
12 13 14 15 16 17 18 19 20 21	A.	the Council? Yes. The project costs have been refined based on ongoing discussions with engineers and management and recent engineering studies. There have been revisions to the estimated costs for the wells and raw water and increases in the amount available for main projects in the bond issue. Further, the Water System Boundary Report dated August 24, 2020 prepared by GRW Engineers updated the costs for the storage tanks and related transmission mains and water boosters/valve stations. The updated GRW Boundary Report is included as <u>Attachment SD-3</u> to Scott Dompke's testimony. I am including as <u>Attachment DLB-2</u> a summary of the updated project cost estimates to be funded with the proposed bond issue. Based on information from management and the

1		plenty of need for these capital improvements and the \$22.2 million total par amount of
2		bonds is justified.
3	Q.	How did you determine the amount of cash on hand available to pay for a portion of
4		proposed project costs?
5	A.	The available cash to apply to the project was based on calculations on page 9 which
6		compares the fund balances of Petitioner as of December 31, 2019 with the minimum
7		balances either required to be maintained based on CCU policies or that are typically
8		maintained by municipal utilities such as Petitioner. The minimum balance for the
9		operation and maintenance fund is calculated based on the 45-day allowance for the
10		payment of current operation, maintenance and repair expenses.
11		
12		As of December 31, 2019, the Water Utility had no outstanding debt obligations. The
13		allowance for unforeseen capital expenditures is included in the depreciation fund for

budgetary purposes in an amount equal to \$1,652,480, which is the calculated amount for 14 post project depreciation expense, plus \$3,480,000 of cash on hand to be spent on the 15 proposed projects funded with bond proceeds, less the \$1,715,000 loan to the sewer 16 which will be repaid and used for the proposed projects. Finally, we provide an allowance 17 for cash reduction of \$100,000 due to anticipated revenue losses stemming from the 18 pandemic. The total minimum balance required in the depreciation fund is equal to 19 \$3,517,480. The customer deposits fund includes customer deposits and is restricted and 20 held to pay back to customers disconnecting from the water system. The Pension Fund is 21 22 restricted for the pension liability. Factoring in all of these minimum balance requirements the available cash is negative \$527,158. 23

Q. How was the \$100,000 estimate for cash reduction due to the revenue losses
 stemming from the COVID-19 pandemic determined?

A. Utilities across the country felt the impact of the COVID-19 pandemic resulting from 3 commercial business and industrial closures and reduced production beginning in March 4 of this year. The Petitioner with its significant industrial base felt the effects of reduced 5 usage and revenues which were down significantly for billings in May and June. 6 Residential revenues were up which helped offset some of the revenue losses, but the 7 8 total water billings are down a total of \$46,000 for the 7 months ended July 31, 2020 compared to the same time period last year. Add to this the lost forfeited discounts 9 10 which were not able to be charged, along with what may happen the rest of the year results in an estimated \$100,000 loss in revenues due to the pandemic. This revenue loss 11 will have a direct effect on cash balances. Industrial production appears to have come 12 back but there are still large commercial buildings which remain empty with employees 13 working from home. The Petitioner is hopeful that long-term usage and revenues will get 14 back to normal but the timing of getting back to normal is unknown, and until that time 15 the Petitioner will continue to see reductions in cash from revenue losses due to much of 16 the expenses being fixed. There also may be a resurgence of the pandemic which could 17 further reduce usage and revenues and affect cash balance levels. 18

19

Q. Please summarize the bond amortization schedules in the Accounting Report.

A. The amortization of the proposed 2021 bonds begins on page 11 of the report. Recently, the SRF has received approval from U.S. EPA to allow for thirty-five year amortization periods for project components that consist of transmission and distribution lines that have an expected useful life of at least that number of years. Since Petitioner's proposed

1		project includes items for construction of water lines, the allocable principal of the
2		proposed bonds (\$7,475,000) is shown to be paid semiannually over a thirty-five (35)
3		year period beginning July 1, 2023, and the remaining principal of the proposed bonds
4		(\$14,725,000) is shown to be paid semiannually over a twenty (20) year period beginning
5		July 1, 2023. Interest is shown to be paid semiannually beginning January 1, 2022, at an
6		assumed interest rate of 3.0 percent for the twenty (20) year bonds and 3.3 percent for the
7		thirty-five (35) year bonds. The average principal and interest payment for the first five
8		years on the proposed bond issues is calculated on pages 11 and 13, while the combined
9		principal and interest payment for the proposed bonds is shown on page 15.
10		
11	Q.	How did you arrive at the estimated interest rate shown on the proposed
12		amortization schedules?
13	A.	SRF uses a tiered system that takes into account the median household family income of
14		the customer base as well as the system's user rates when setting program interest rates.
15		In addition, SRF adds a ten basis point "kicker" to the interest rate for each five year
16		increase in term beyond a standard twenty year amortization. These interest rates change
17		on a quarterly basis depending on the fluctuations in the municipal bond open market. As
18		such, the final interest rate will not be known until closing with the SRF occurs. Using a
19		median household income of \$60,152 and an expected user rate for 4,000 gallons under
20		\$25, the base interest rate for Petitioner is the current Tier I rate of 2.00%. To this, we
21		have added thirty basis points for the thirty-five year amortization plus an additional one
21 22		have added thirty basis points for the thirty-five year amortization plus an additional one hundred basis points for both series of bonds for interest rate risk until bond closing and

1		in a pooled financing through the SRF program if the project is not in SRF's fundable
2		range.
3	Q.	Mr. Baldessari, is it true at this point in time, Petitioner is calculating the cost of the
4		proposed project based on engineering estimates not actual construction bids
5		received?
6	A.	That is correct. The Water Utility has received construction bids on the construction
7		projects being constructed now. The construction projects to be paid from the long-term
8		SRF bond issues are based on engineering estimates.
9		
10	Q.	Is it also true that the actual cost of the proposed financing is unknown given the
11		uncertainties with the actual interest rates?
12	A.	That is true.
13		
14	Q.	Given these uncertainties, does Petitioner anticipate conducting a true-up
15		calculation of the proposed rates and charges?
16	A.	Yes. Once the engineering studies are completed and the actual construction bids are
17		received, Petitioner will be able to appropriately size the proposed borrowing, for the
18		main and line projects for the 35-year series bond maturity and all other projects for the
19		20-year series bond maturity. In addition, upon closing with SRF the actual interest rate
20		and annual debt service requirement will be known. At that point in time, it would be
21		appropriate to perform a true-up calculation on the rates and charges.
22		

23 Q. Please summarize the pro forma operating disbursements.

A. The calculation of the pro forma annual cash operating expenses is presented beginning 1 2 on page 16 of the report, which shows the test year cash operating expenses, including taxes, and the adjustments which have been made to arrive at the pro forma annual cash 3 operating expenses. Each of the adjustments is explained in detail on pages 17 through 19 4 of the report. Adjustments have been made to reflect current price levels for labor, current 5 and future staffing levels, employee benefits, taxes, purchased power and insurance. In 6 addition, adjustments have been made to provide for periodic expenses such as well and 7 8 pump maintenance, storage tank maintenance and filter maintenance.

9

10 Q. Please explain the adjustment to payroll expenses.

A. The adjustment for pro forma payroll expenses reflects the pay rates recommended by the 11 salary study completed by the City. The salary study is included with the workpapers 12 submitted with my testimony. In addition, adjustments were made to normalize for the 13 addition of five (5) new employees, the hiring of four (4) vacant positions and anticipated 14 hours that each employee will work. CCU's management recently contracted for a 15 compensation study to make sure that their employees were being adequately paid 16 compared to what the market is for utility workers. The study found that most of the 17 employees were being underpaid compared to their peers in the market which warranted 18 a significant adjustment to their wages. CCU phased-in the wage adjustment over three 19 years and is currently in the last year of the wage adjustments resulting from the 20 compensation survey. The total adjustment for pro forma salaries and wages expense is 21 22 \$464,756 over test year levels.

1	Q.	Please explain the adjustments to employee benefits.
2	A.	The adjustment for pro forma employee benefits reflects the FICA tax on the pro forma
3		salaries and wages and the current premiums in effect for employee health insurance.
4		CCU has a private pension plan for its employees and the annual adjustment is based on
5		actuarial studies. We have adjusted the test year expense to the actual test year amount
6		based on the actuarial studies. These studies are included with the workpapers submitted
7		with my testimony. The Petitioner recorded a negative test year pension expense, whereas
8		the actual pension expense was \$157,695. An adjustment was made to correct this.
9		
10	Q.	Please explain the adjustment to liability insurance.
11	A.	The adjustment for pro forma insurance reflects the anticipated 2020 workers'
12		compensation, property and liability insurance amounts per the 2020 budget. This
13		adjustment results in insurance expenses of \$2,282 over test year levels.
14		
15	Q.	Please explain the adjustment to utility receipts tax.
16	A.	Test year operating disbursements were adjusted to reflect the liability for the 12-month
17		period. Test year gross receipts totaled \$3,954,199. After eliminating the standard
18		deduction of \$1,000, taxable receipts totaled \$3,953,199 which results in utility receipts
19		tax of \$55,345 based on the tax rate of 1.4%. Actual test year disbursements totaled
20		\$57,429 resulting in a downward adjustment to the test year of \$2,084.
21		
22	Q.	Please explain the adjustment to purchased power.

1	A.	The adjustment to purchased power reflects the anticipated 13.6% increase proposed by
2		Duke Energy. This adjustment results in an increase of \$77,756 over test year levels.
3		Shortly before we went before the Utility Service Board to start the process for seeking
4		approval of new rates, I understand there was a final order issued in Duke's rate case,
5		Cause No. 45253. That order authorizes a total increase in operating revenues of 5.7% to
6		take effect in two steps, with the last step to take effect simultaneously with the end of the
7		adjustment period in our case. I have not had adequate time to study the Duke tariffs that
8		were actually approved by the IURC for Step 1 to calculated the precise dollar value of
9		the purchased power adjustment, and I expect it will be modified to reflect the final rate
10		design and overall approved rate increase of 5.7%.

12 Q. Please explain the adjustment made to periodic maintenance disbursements.

Proper operation and maintenance of Petitioner's system includes a variety of activities A. 13 performed on a periodic basis. These include valve maintenance, water tank maintenance, 14 well and well pump maintenance, chemical feed system maintenance, generator 15 maintenance, plant meter maintenance, booster station maintenance, gravity filter 16 replacement and maintenance, high service pump maintenance, hoist maintenance, fire 17 extinguisher maintenance and boiler/HVAC maintenance. The estimated expenses and 18 frequencies shown in the Accounting Report were obtained from Petitioner's water 19 superintendent, John Wampler. Using management's estimates and the cost associated 20 with each activity and the frequency of performance, an allowance was calculated for 21 22 each activity that reflects an annualized cost for each. When test year periodic

1		maintenance expenditures are considered the overall adjustment is an increase in test year
2		operating disbursements of \$172,269.
3		
4	Q.	Please explain the normalized annual operating receipts calculations presented on
5		pages 20 through 27.
6	A.	Test year receipts were normalized by customer class to reflect the change in the number
7		of customers billed throughout the course of the test year. In addition, fire protection
8		revenues were adjusted for current customer counts.
9		
10	Q.	Please explain the Schedule of Additions to Utility Plant and Annual Depreciation
11		Expense presented on page 28.
12	A.	This schedule calculates the average annual addition to utility plant over the past 10 years
13		which totaled \$982,200. We also calculate the annual depreciation expense based on the
14		composite 2.0% depreciation rate for the current utility plant in service and the utility
15		plant in service upon completion of the projects. The current calculated depreciation
16		expense as of December 31, 2019 is \$1,138,880 and the depreciation post projects is
17		calculated to be \$1,652,480.
18		
19	Q.	What are the total revenue requirements that Petitioner must recover on an annual
20		basis to operate its water system?
21	A.	Pages 29 and 30 summarize the pro forma annual revenue requirements of Petitioner.
22		The pro forma annual revenues are shown in three phases. Phase I reflects those expected
23		requirements and revenues needed now through 2022 with proposed debt service of

1	\$688,425 and a partial recovery of depreciation expense in the amount of \$750,000 to
2	help phase-in the required increase. Phase II reflects those expected requirements and
3	revenues needed through 2023 with proposed debt service equal to the average annual
4	pro forma amount for the five bond years ending January 1, 2028 of \$1,358,051, and
5	current calculated depreciation expense of \$1,138,880. Phase III reflects those
6	requirements and revenues needed during 2024 and thereafter including the depreciation
7	expense requirement of \$1,652,480 which includes the proposed projects and the related
8	additional utility receipts taxes. The Petitioner is proposing the rates and charges be
9	phased-in over this three-year period to minimize the burden on ratepayers. This is done
10	by phasing in the recovery of full debt service and depreciation.
11	
12	Pro forma cash operating expenses totaling \$4,967,911 are detailed on pages 16 through
13	19 plus the additional \$24,146 for Phase I, \$37,477 for Phase II and \$43,946 for Phase III
14	for additional Indiana utility receipts taxes resulting from the proposed revenue increases.
15	
16	Debt service requirements for Phase I reflect the assumed interest payments on the
17	Proposed Bonds for the bond year ended January 1, 2023 with interest only payments
18	during construction on the Proposed Bonds. The Phases II and III debt service requirements
19	increase by \$669,626 to provide for both principal and interest payments on the Proposed
20	Bonds and reflect the assumed average annual debt service for the five bond years ending
21	January 1, 2028.

1		The debt service reserve requirement for the Proposed Bonds will be equal to the maximum
2		combined annual debt service funded over a five-year period. This annual amount has been
3		included as a revenue requirement.
4		
5		The depreciation expense requirement calculated using the composite depreciation
6		expense rate of 2.0% as shown on page 28. The calculated depreciation expense based
7		on current utility plant in service is reduced to a level of \$750,000 for Phase I to phase
8		the rate adjustments in to ease the burden on ratepayers. The depreciation expense
9		calculated based on utility plant in service as of December 31, 2019 is \$1,138,880 for
10		Phase II and adding the proposed projects is \$1,652,480 for Phase III.
11		
12		Cost of Service Study
13		
14	Q.	Mr. Baldessari, would you please describe the general purpose of a cost of service
15		study?
16	A.	A cost of service study is a detailed analysis of the cost drivers that influence the
17		
10		provision of service to a utility's customers. The goal of the study is to determine the
18		provision of service to a utility's customers. The goal of the study is to determine the appropriate level of cost recovery allocable to each customer class. The cost of service
18 19		provision of service to a utility's customers. The goal of the study is to determine the appropriate level of cost recovery allocable to each customer class. The cost of service study is normally done in conjunction with and leads to the creation of a rate design that
19 20		provision of service to a utility's customers. The goal of the study is to determine the appropriate level of cost recovery allocable to each customer class. The cost of service study is normally done in conjunction with and leads to the creation of a rate design that recovers costs from the appropriate customer class as closely as possible to the allocated
19 20 21		provision of service to a utility's customers. The goal of the study is to determine the appropriate level of cost recovery allocable to each customer class. The cost of service study is normally done in conjunction with and leads to the creation of a rate design that recovers costs from the appropriate customer class as closely as possible to the allocated cost of service.

1	Q.	Are there different accepted methodologies of conducting a cost of service study that
2		are employed in practice and if so, which did you use this case?
3	A.	Yes, there are different accepted methodologies. For purposes of allocating costs to the
4		customer classes and designing proposed rates for Petitioner's water utility, I have
5		employed the Base-Extra Capacity method promulgated by the American Water Works
6		Association ("AWWA") in its seventh edition of Principles of Water Rates, Fees and
7		Charges (the "M1 Manual"). This methodology has been widely accepted in Indiana and
8		by this Commission in numerous previous cases.
9		
10		The Base-Extra Capacity method is built upon the allocation of both the utility's
11		investment in plant and its proposed revenue requirements to the various functional cost
12		categories of the utility. These functional cost categories include base, extra capacity,
13		customer and direct fire protection. Base or average day capacity costs reflect items that
14		vary based upon the amount of water used under average usage conditions. Extra
15		capacity costs are usually divided between maximum day and maximum hour and include
16		those costs that are designed to meet demands in excess of the average day and maximum
17		day respectively. As the name implies, customer costs generally vary based upon the
18		number of customers connected to the system and are usually divided between meter
19		costs and billing costs. Finally direct fire protection includes those costs that are incurred
20		in order to not only maintain fire hydrants within the system but also to provide for a
21		portion of the cost recovery of sizing the system oversizing so that it provides sufficient
22		flows and pressures in order to adequately address a fire event.

1		Once the costs have been allocated to the functional categories, they are assigned to the
2		various customer classes based upon each customer class' usage characteristics and their
3		associated responsibility for those costs. After the cost responsibility for each customer
4		class has been determined a rate structure can then be designed that appropriately
5		recovers those costs.
6		
7	Q.	Would you please explain more fully the details of your cost of service and rate
8		design calculations?
9	A.	As I mentioned, each of the revenue requirements are first allocated to the functional cost
10		categories, and then assigned to each customer classification based upon each of the
11		classes' responsibility for those functional costs. The allocated cost of service for each
12		customer classification is then used as a basis for developing the proposed rates and
13		charges. These calculations begin with a detailed analysis of the test year billing
14		determinants in order verify their statistical validity for rate-setting purposes.
15		
16		Pages 31 - 32 show a summary of this analysis by presenting Petitioner's usage
17		characteristics and test year metered billings. The consumer analysis control period
18		variance was -1.12% for water usage charges. This small variance indicates that the
19		analysis and the underlying billing determinants are statistically valid for rate-making
20		purposes.
21		
22		Pages 33 – 35 present the calculation of the test year equivalent meters by customer class
23		and equivalent fire connections. Normalized bills are multiplied by the appropriate

1	equivalency factor to arrive at equivalent connections. The equivalency factors used are
2	those followed in the M1 Manual. These calculations reflect the fact that larger size
3	connections have the ability to place greater demands on the system and therefore
4	generally receive a larger cost allocation than small connections.
5	
6	Summarized on page 36 of the report are the units of service for each customer
7	classification based upon information extracted from Petitioner's billing records for the
8	test year and adjusted for capacity factors as calculated using AWWA methodologies.
9	The seven customer classifications are residential, small commercial, large commercial,
10	industrial, wholesale where we separated the Petitioner's two wholesale users Eastern
11	Bartholomew Water Corporation and Southwestern Bartholomew Water Corporation into
12	their own class, and fire protection. The column entitled "Annual Sales" reflects the
13	billed consumption for each rate classification for the test year. The total sales are used
14	as the basis for allocating the base costs of service. For instance, the average daily
15	demand for service is anticipated to be 6,046,600 gallons. The residential average
16	demands amount to 2,291,200 gallons or approximately 38 percent of the total average
17	daily demand. Consequently, the residential users would be responsible for
18	approximately 38 percent of the base costs of providing water service.
19	
20	The average daily demands for each rate classification have been multiplied by the
21	imputed capacity factors to determine the responsibility each customer class has for the
22	extra capacity costs associated with meeting maximum day demands and maximum hour
23	demands for service. For instance, the total maximum day demand has been calculated at

1		15,504,700 ganons per day. This exceeds the average day demand of 0,040,000 ganons
2		and results in extra maximum day capacity of 9,258,100 gallons. The extra maximum
3		day capacity of the residential customers amounts to 4,124,200 gallons per day, or
4		approximately 45 percent of the total maximum day extra capacity. Accordingly,
5		approximately 45 percent of the costs related to meeting the extra maximum day
6		demands for service are allocable to the residential customers. The maximum hour
7		demand has been calculated at a rate of 23,392,400 gallons per day. This capacity
8		exceeds the average daily demands of 6,046,600 gallons and the extra capacity for
9		maximum day demands of 15,304,700 gallons resulting in extra capacity for maximum
10		hour demands of 8,087,700 gallons.
11		
12	Q.	You mentioned that you imputed some of the capacity factors. Would you please
13		explain the nature of the capacity factors and how you arrived at the figures
14		presented?
15		
	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class
16	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding
16 17	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior
16 17 18	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine
16 17 18 19	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine noncoincident capacity factors for each customer class. Generally, this methodology
16 17 18 19 20	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine noncoincident capacity factors for each customer class. Generally, this methodology works well but in some cases, because of a lack of data, certain inferences must be made
16 17 18 19 20 21	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine noncoincident capacity factors for each customer class. Generally, this methodology works well but in some cases, because of a lack of data, certain inferences must be made based upon sound rate-making principles and practitioner experience. These capacity
 16 17 18 19 20 21 22 	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine noncoincident capacity factors for each customer class. Generally, this methodology works well but in some cases, because of a lack of data, certain inferences must be made based upon sound rate-making principles and practitioner experience. These capacity factors are the foundation upon which the allocations of cost are made. The maximum
 16 17 18 19 20 21 22 23 	A.	It did not seem prudent for Petitioner to incur the cost of a detailed customer class capacity factor study. Instead, the M1 Manual provides a detailed description regarding two methodologies for calculating capacity factors. In this case, as in numerous prior cases before the Commission, I employed the methodology described to determine noncoincident capacity factors for each customer class. Generally, this methodology works well but in some cases, because of a lack of data, certain inferences must be made based upon sound rate-making principles and practitioner experience. These capacity factors are the foundation upon which the allocations of cost are made. The maximum day capacity factors reflect the relationship of each customer class' maximum day

1	requirements to its average day requirements. Likewise, the maximum hour capacity
2	factors reflect the relationship of each customer class' maximum hour requirements to its
3	average usage. For example, page 36 shows that the calculated residential capacity factor
4	of 280 results in expected maximum day total capacity needs of 6,415,400 gallons which
5	is 280% or 2.8 times the actual average day requirement of 2,291,200 for residential
6	customers. Similarly, the calculated residential maximum hour total capacity of
7	9,623,000 gallons is 4.2 times the actual average day requirement of 2,291,200 gallons
8	for residential users.
9	
10	As is often the case, Petitioner does not track its maximum hour rate of customer
11	demand. This amount, however, figures into the calculation of capacity factors. In these
12	situations, we impute an appropriate value based upon the design limits of various
13	components of the system such as wells, high service pumps, filters or other capacity
14	restricted infrastructure. The goal of these calculations is to produce capacity factors that
15	are reasonable and that are ideally within the acceptable tolerance limits discussed in the
16	M1 Manual. Petitioner's consulting engineers were consulted regarding the proposed
17	capacity factors and they agreed that they were reasonable based on their knowledge of
18	the water utility system.
19	

Q. 20

Please continue with the explanation of your report.

The number of bills for each customer classification was obtained directly from the billing A. 21 records of the Petitioner and was subsequently used as a basis for allocating customer costs 22 related to billing. The number of connections for each customer classification has been 23

1	weighted by equivalency factors to equate larger size meters to a standard residential 5/8-
2	inch water meter. These calculations are shown on pages $33 - 35$ of the report. The
3	equivalent connections for each customer classification are used as a basis for allocating
4	customer related costs associated with meters and services. The ratios developed using the
5	units of service data on page 36 of the report are used for subsequent allocations.
6	
7	The next several pages of the report detail the allocation of Petitioner's investment in
8	plant and the pro forma revenue requirements to the functional cost categories and
9	ultimately to the customer classes. On pages 37 and 38 of the report, Petitioner's utility
10	plant as of December 31, 2019 has been allocated to the various functional cost
11	categories.
12	
13	Pages 39 and 40 of the report present the allocation of the pro forma annual operation and
14	maintenance expenses to each of the functional cost categories.
15	
16	On page 41 the pro forma unit costs of service, as allocated to each of the functional cost
17	categories on the preceding pages, are divided by the units of service as calculated on
18	page 36 to arrive at the pro forma cost of service per unit. For example, page 41 of the
19	report shows \$1,290,869 of the net operation and maintenance expenses, \$10,349 of
20	additional utility receipts tax, \$407,279 of debt service, \$81,455 of debt service reserve,
21	and \$495,579 of replacements and improvements have been allocated to the base cost of
22	service for a total of \$2,285,531 to be recovered through rates allocable to base cost.
23	Dividing these allocated base costs by the test year billed usage results in a pro forma

- base cost of service of \$1.0356 per unit of service, in this case 1,000's of gallons. Similar
 calculations have been made for the extra capacity costs and the customer and fire
 protection costs.
- 4

On page 42, the cost of service per unit is then applied to the corresponding units of 5 service for each customer classification as developed on page 36 to arrive at each 6 customer classes' responsibility for those functional costs. For example, applying the 7 8 base cost of service of \$1.0356 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 \$866,043. 9 Likewise, applying the cost of service per unit for maximum day extra capacity of 10 \$349.8560 to the residential units of service allocates \$1,442,876 of extra capacity 11 maximum day costs to residential users. The sum of each customer classifications' 12 responsibility for each of the functional cost categories equals the total allocated cost of 13 service for each customer classification. Of the \$7,980,037 total pro forma net revenue 14 requirements to be provided through rates and charges, \$3,552,375, or 44.5 percent, are 15 allocable to residential customers, \$946,649, or 11.9 percent are allocable to the small 16 commercial class, \$967,969, or 12.1 percent are allocable to the large commercial class, 17 \$1,184,786, or 14.8 percent are allocable to the industrial class, \$52,954 or 0.7 percent 18 19 are allocable to Eastern Bartholomew Water Corporation, \$397,856 or 5.0 percent are allocable to Southwestern Bartholomew Water Corporation and \$877,448, or 11.0 20 percent, are allocable to fire protection. 21

1	Page 43 calculates the proposed monthly base charge by meter size. The meter cost per
2	unit is adjusted based on the appropriate equivalency factor for each meter size and then
3	added to the billing cost per unit to arrive at the monthly base charge.
4	
5	Page 44 shows the allocation of fire protection costs to public and private fire service.
6	These costs are allocated based upon the number of equivalent connections for each.
7	
8	Page 45 shows the calculation of the proposed annual automatic sprinkler charges which
9	are derived from the proposed rate per 5/8-inch equivalent fire hydrant connection also
10	shown on this page. The equivalent fire hydrant rate is calculated by dividing the total
11	costs to be recovered from fire protection by the total number of equivalent fire
12	protection connections and results in a charge of \$1.55 per year. This amount is then set
13	as the annual rate for public and private hydrants as well as the 5/8-inch automatic
14	sprinkler rate. Charges for alternative sized sprinkler connections are determined by
15	multiplying the appropriate equivalency factor based on a sum of squares methodology
16	times the rate per fire protection equivalent.
17	
18	Pages 46 through 49 of the report show the calculation of the pro forma annual revenues
19	for each rate classification at the proposed rates and charges. In this case, we are
20	proposing to consolidate Petitioner's existing five tier declining block rate structure into a
21	three tier system. Specifically, the first block which includes the first 15,000 gallons of

- usage per month at a price of \$3.16 per 1,000 gallons is set at a level that captures
- 23 approximately 89% of the residential sales. The first tier along with the second tier

1	which includes the next 285,000 gallons of usage per month at a price of \$2.64 per 1,000
2	gallons is set at a level that captures approximately 98% of the small commercial sales.
3	The second tier and third tier which includes all usage over 300,000 gallons per month at
4	a price of \$1.83 per 1,000 gallons (second and third tiers combined for all usage over
5	15,000 per month) 88% of the large commercial sales. The bottom or tail block
6	established for all usage over 300,000 gallons at a price of \$1.83 per 1,000 gallons and
7	represents the industrial consumption which includes 75% of industrial sales. The
8	proposed rates and charges when applied to test year billing determinants results in
9	calculated receipts that are within \$2,378 of the total net revenue requirement.
10	
11	The volume charge calculations on page 46 and 47 are broken out into the first 15,000
12	gallons, the next 35,000 gallons, the next 250,000 gallons and all usage over 300,000 yet
13	there are only 3 proposed usage tiers. That is because we initially thought there would be
14	four rate tier usage blocks but after working though the cost of service study it made
15	sense to combine the two middle blocks into one rate block.
16	
17	Page 50 of the report compares the proposed cost of service as determined on page 42
18	with the normalized annual revenues generated under the existing rates and charges and
19	revenues generated under the adjusted rates for each customer classification.
20	
21	For Petitioner to achieve the allocated cost based targets compared to test year
22	normalized revenues, average residential revenues would be increased approximately
23	80.89%, small commercial revenues would be increased approximately 104.13%, large

1		commercial revenues would be increased approximately 116.96%, industrial revenues
2		would be increased approximately 108.83%, Eastern Bartholomew Water Corporation
3		revenues would be increased 71.15%, Southwestern Bartholomew Water Corporation
4		revenues would be increased 126.01% and fire protection revenues would be increased
5		approximately 16.34%.
6		
7		Pages 51 and 52 of the report summarize the present and proposed water rates and
8		charges. The rates proposed for residential, small commercial, large commercial and
9		industrial customers consist of a volumetric rate and a monthly service charge based on
10		the customer's meter size.
11		
12		Page 53 of the report presents a comparison of present and proposed monthly bills for
13		various levels of usage for several different meter sizes.
14		
15		Public Fire Protection Charge
16		
17	Q.	Mr. Baldessari, would you please describe your calculation of the public fire
18		protection charges?
19	A.	A municipal utility such as Petitioner has the ability to collect the costs associated with
20		providing public fire protection service via either a charge to the municipal general fund
21		based on the number of publicly-owned fire hydrants or through a monthly charge which
22		is added to the bill of all inside-City customers and all outside-City customers within
23		1,000 feet of a public fire hydrant. Petitioner currently uses the monthly customer charge

1	methodology. As part of the cost of service analysis and the determination of the public
2	fire protection costs, we recalculate the amount of the monthly charges in order to
3	appropriately recover the allocated cost.

The fifth section of the report beginning on page 54 shows the number of equivalent 5 customer connections. Page 55 presents the calculation of the monthly charge per 6 7 equivalent connection. The total cost of public fire protection revenues to be recovered, 8 \$735,469, is then divided by the number of equivalent connections to produce a monthly 9 charge of \$2.65 per equivalent connection. On page 56, the monthly charge per equivalent connection of \$2.65 is adjusted by the appropriate equivalency factors for 10 larger size meters. When multiplied by the number of actual connections the resulting 11 annual revenues are shown to nearly equal the allocated cost of service for public fire 12 protection. These monthly charges are billed in addition to the monthly base charge and 13 volumetric user rates discussed earlier. 14 15 **System Development Charge** 16

17

18

19

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

A. On page 57 we have calculated the SDC using current data and the incremental cost
 methodology as it is described in the AWWA Manual M-1 I previously mentioned. On
 page 57 we have calculated the estimated costs per EDU to serve new development. The
 estimated cost of the new water treatment plant of \$50,600,000 is divided by the

1		maximum design capacity of 20,000,000 GPD. This results in a unit cost of \$2.53 per
2		GPD. Then multiplying this by the maximum-day demand for the average 5/8-inch
3		customer results in an average investment per 5/8-inch customer of \$992 or \$990,
4		rounded.
5		
6		The following page shows the calculation of the system development charge for each
7		meter size based on the corresponding equivalency factor.
8		
9		Conclusion
10		
11	Q.	Does this conclude the explanation of Petitioner's <u>Attachment DLB-1</u> ?
12	A.	Yes it does.
13		
14	Q.	Can Petitioner obtain the funding needed to complete the capital improvements
15		discussed in the testimony of Scott Dompke and Jim McNulty under current rates
16		and charges?
17	A.	No, it cannot. The net revenues at pro forma present rates are insufficient to make the
18		estimated debt service payments.
19		
20	Q.	In your opinion, does the SRF provide a reasonable and cost-effective source of
21		funds to construct the capital improvements?
22	А.	Yes, it does. I believe the Commission should authorize the issuance of bonds covering
23		the estimated costs of the capital improvements through the SRF and allow the inclusion

1		of the costs of so doing in this rate case. The proposed rate increase provides sufficient
2		debt service coverage to satisfy the SRF and it allows Petitioner to meet its other
3		statutory revenue requirements.
4		
5	Q.	Is it your opinion that the rates proposed in your Accounting Report are fair, just,
6		non-discriminatory and reasonable and necessary to meet the pro forma revenue
7		requirements of the utility?
8	A.	Yes, it is my opinion that they are.
9		
10	Q.	Does this conclude your direct testimony in this Cause?
11	A.	This concludes my direct testimony at this time.

DMS 17923158v1

VERIFICATION

I, Douglas L. Baldessari, affirm under penalties of perjury that the foregoing representations are true and correct to the best of my knowledge, information, and belief.

Døuglas L. Baldessari 20 2 Date:

Cause No. 45427 Attachment DLB-1 Page 1 of 66

Attachment DLB-1

CITY OF COLUMBUS

ACCOUNTING REPORT ON PROPOSED IMPROVEMENT PROJECT FINANCING AND COST OF SERVICE RATE STUDY

MUNICIPAL WATER UTILITY

JULY 13, 2020



Cause No. 45427 Attachment DLB-1 Page 2 of 66

TABLE OF CONTENTS

<u>Pages</u>

SUPPLEMENTAL DATA

- 3 4 Comparative Statement of Net Position
- 5 6 Comparative Statement of Revenues, Expenses and Changes in Net Position
- 7 8 Comparative Statement of Cash Flows
- 9 Comparison of Account Balances with Minimum Balances Recommended

PRO FORMA FINANCIAL DATA

- 10 Schedule of Estimated Project Costs and Funding
- 11 Schedule of Amortization of \$14,725,000 Principal Amount of Proposed Waterworks Revenue Bonds, Series 2021A
- 12 13 Schedule of Amortization of \$7,475,000 Principal Amount of Proposed Waterworks Revenue Bonds, Series 2021B
- 14 15 Schedule of Combined Bond Amortization
- 16 19 Pro Forma Operation and Maintenance Expense
- 20 27 Calculation of Normalized Annual Operating Revenues
- 28 Schedule of Additions to Utility Plant and Annual Depreciation Expense
- 29 30 Pro Forma Annual Revenue Requirements and Annual Operating Revenues

COST OF SERVICE STUDY

- 31 32 Summary of Test Year Consumer Study
- 33 35 Calculation of Test Year Equivalent Meters
- 36 Test Year Units of Service
- 37 38 Allocation of Utility Plant to Functional Cost Components
- 39 40 Allocation of Pro Forma Operation and Maintenance Expenses to Functional Cost Components
 - 41 Unit Costs of Service
 - 42 Cost of Service Allocated to Customer Class
 - 43 Calculation of Proposed Monthly Service Charges
 - 44 Allocation of Fire Protection Cost to Public and Private Fire Service Based Upon Allocated Cost of Service
 - 45 Calculation of Private Fire Protection Charges Based Upon Allocated Cost of Service
- 46 49 Pro Forma Annual Operating Revenue at Adjusted Rates and Charges Based Upon Allocated Cost of Service
- 50 Comparison of Allocated Cost of Service With Revenue Under Adjusted Rates
- 51 52 Schedule of Present and Proposed Rates and Charges
 53 Comparison of Present and Adjusted Monthly Bills at Selected Usage Amounts Based upon Allocated Cost of Service
TABLE OF CONTENTS (Cont'd)

<u>Pages</u>

CALCULATION OF PUBLIC FIRE PROTECTION CHARGE

- 54 Calculation of Equivalent Connections
- 55 Calculation of Proposed Public Fire Protection Charge Per Equivalent Connection
- 56 Allocation of Annual Public Fire Protection Revenue by Meter Size

CALCULATION OF SYSTEM DEVELOPMENT CHARGE

- 57 Calculation of Estimated Costs Per EDU to Serve New Development
- 58 Calculation of Proposed System Development Charges for Oversized Meters

Cause No. 45427 Attachment DLB-1 Page 4 of 66



July 13, 2020

Utility Service Board Columbus City Utilities 1111 McClure Road Columbus, Indiana 47201 Baker Tilly US, LLP 8365 Keystone Crossing, Ste 300 Indianapolis, IN 46240 United States of America

T: +1 (317) 465 1500 F: +1 (317) 465 1550 bakertilly.com

ACCOUNTANTS' RATE STUDY AND COMPILATION REPORT

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

This special purpose cost of service 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 December 31, 2019, 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 Water Utility's revenue and revenue requirements of an adjustment to rates and charges for service and other changes that may be reasonably fixed, known or measured, excluding provisions for future inflation. The actual results achieved may vary from the pro forma information and the variations may be material. We have no responsibility to update this report for events and circumstances occurring after the date of this report.

We have compiled the accompanying comparative statement of net position of the Water Utility as of December 31, 2017, 2018 and 2019, and the related comparative statements of revenues, expenses, and changes in net position, and cash flows for the periods then ended and supplementary data. We have not audited or reviewed the accompanying historical financial statements and supplementary data, and accordingly, do not express an opinion or provide any assurance about whether the financial statements are in accordance with accounting principles generally accepted in the United States of America.

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

(Continued on next page)

Utility Service Board Columbus City Utilities Date: July 13, 2020 Page 2

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

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

Baker Tilly US, LLP

Cause No. 45427 Attachment DLB-1 Page 6 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

SUPPLEMENTAL DATA

COMPARATIVE STATEMENT OF NET POSITION

	As of		
ASSETS:	12/31/2017	12/31/2018	12/31/2019
Current Assets			
Operating - cash and cash equivalents	\$1 538 273	\$848 566	\$1 336 902
Depreciation - cash and cash equivalents	2 037 657	2 085 843	2 193 220
Restricted cash and cash equivalents	2,001,001	2,000,010	2,100,220
Customer deposits	129 360	146 662	166 521
Inventory - materials and supplies	278 377	270 334	275 784
Accounts receivable (net)	352,961	365 207	314 504
Interest receivable	5 174	-	-
Prenaid expenses	53 869	59 674	10 549
Interfund loan receivable	-	-	1.715.000
Total Current Assets	4,395,671	3,776,286	6,012,480
Non-Current Assets			
Operating investments	700 000	1 000 000	
Depresistion investments	1 200,000	1,000,000	-
Depreciation - investments	1,200,000	1,000,000	-
Restricted Assets:	0 740 070		
Pension - investments	3,713,873	4,277,802	4,121,348
Sub-totals	5,613,873	6,277,802	4,121,348
Capital Assets:			
Capital assets	55.024.612	56.230.279	56,770,544
Less accumulated depreciation	(19.864.785)	(20.874.837)	(22,366,613)
Sub-Totals	35.159.827	35.355.442	34.403.931
Land	237.523	237.523	237.523
Construction work in progress	24,600	37,813	173,480
Net Capital Assets	35.421.950	35.630.778	34.814.934
- 1			
Total Noncurrent Assets	41,035,823	41,908,580	38,936,282
Total Assets	\$45,431,494	\$45,684,866	\$44,948,762

(Continued on next page)

(Cont'd)

COMPARATIVE STATEMENT OF NET POSITION

		As of	
LIABILITIES AND EQUITY:	12/31/2017	12/31/2018	12/31/2019
Current Liabilities:			
Accounts payable	\$42,421	\$120,952	\$148,307
Net Pension liability	4,894,223	4,977,691	5,080,861
Taxes payable	8,574	6,181	5,094
Salaries and wages payable	46,460	-	79,501
Payable from restricted assets:			
Customer deposits payable	115,512	117,167	120,300
Total Liabilities	\$5,107,190	\$5,221,991	\$5,434,063
NET POSITION:			
Invested in Capital Assets, Net of Related Debt	\$35,421,950	\$35,630,778	\$34,694,634
Restricted	3,727,721	4,307,297	4,287,869
Unrestricted	1,174,633	524,800	532,196
Total Net Position	\$40,324,304	\$40,462,875	\$39,514,699

<u>COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND</u> <u>CHANGES IN NET POSITION</u>

	Calendar Year Ended			
	12/23/2017	12/31/2018	12/31/2019	
Operating Revenues:				
Water sales	\$3,675,130	\$3,808,923	\$3,689,326	
Fire protection	747,412	755,348	761,584	
Penalties	19,930	20,362	18,783	
Miscellaneous revenue	184,662	166,918	134,034	
Total Operating Revenues	\$4,627,134	4,751,551	4,603,727	
Operating Expenses:				
Treatment Plant:				
Salaries and wages	379.008	374.428	384.815	
Miscellaneous	14,446	14,554	14.841	
Transportation	3 917	6 850	6 449	
Materials and supplies	17 617	16 627	10 766	
Rent	-	-	6 239	
Contractual services	14 182	8 465	10 026	
Purchased nower	562 290	586 602	571 737	
I tilities	12 507	12 678	10 739	
Chemicals	157 616	161 510	136 408	
Penairs and maintenance	101,636	274 242	267 703	
Distribution System:	191,030	214,242	201,195	
Salaries and wages	300 208	440 401	544 814	
Miscellencous	1 905	440,491	1 042	
Materiale and supplies	142 620	200.044	1,043	
Materials and supplies	143,020	209,044	22,002	
	400,127	323,705	272,007	
Engineering	15,961	24,000	19,424	
	00.407	70.400	07.004	
Salaries and wages	80,487	70,188	97,864	
Miscellaneous	455	5,780	4,775	
Iransportation	736	/85	/14	
Materials and supplies	1,319	5,416	3,423	
Repairs and maintenance	345	1,006	181	
Administrative and General:				
Salaries and wages	293,424	319,175	359,429	
Employee pensions and benefits	628,182	484,265	318,140	
Rent	90,000	90,000	90,000	
Utilities	21,351	20,366	21,384	
Transportation	4,371	4,669	6,007	
Repairs and maintenance	33,288	51,124	71,215	
Materials and supplies	28,644	48,292	16,903	
Contractual services	336,644	520,031	292,287	
Insurance	52,505	44,259	51,718	
Utility receipts tax	52,991	74,327	57,429	
Miscellaneous	74,461	60,510	77,959_	
Sub-Totals	4,010,233	4,255,340	3,780,474	
Depreciation expense	980,796	1,010,052	1,505,789	
Total Operating Expenses	4,991,029	5,265,392	5,286,263	
Operating Revenues (Loss)	(\$363,895)	(\$513,841)	(\$682,536)	

(Continued on next page)

(Cont'd)

<u>COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND</u> <u>CHANGES IN NET POSITION</u>

	Calendar Year Ended			
	12/23/2017	12/31/2018	12/31/2019	
Nonoperating Revenues:				
Tap fees	\$208,588	\$132,697	\$135,961	
Reconnect fee	65,800	65,040	61,120	
Interest income	48,242	78,580	90,716	
Rental	85,200	85,200	85,200	
Total Nonoperating Revenues	407,830	361,517	372,997	
Nonoperating Expenses:				
Gain (loss) on retirement of assets	11,886			
Income (Loss) Before Contributions and Transfers	32,049	(152,324)	(\$309,539)	
Contributed Capital and Transfers:				
Contributed capital	80,770	-	-	
Transfers	1,518			
Total Contributions and Transfers	82,288			
Change In Net Position	114,337	(152,324)	(309,539)	
Net Position - Beginning	39,995,108	40,324,304	40,462,875	
Net Position - Adjustment (1)	214,859	290,895	(638,637)	
Net Position - Ending	\$40,324,304	\$40,462,875	\$39,514,699	

(1) Adjustment due to change in equity accounts and prior period adjustment.

<u>COMPARATIVE STATEMENT OF CASH FLOWS</u> Increase/(Decrease) in cash and cash equivalents

	Ca	Calendar Year Ended			
	12/23/2017	12/31/2018	12/31/2019		
Cash flows from Operating Activities: Cash received from customers	\$4,627,595	\$4,739,305	\$4,654,430		
employees and others	(3,688,242)	(3,842,232)	(4,163,364)		
Net Cash from Operating	030 353	807 073	401.066		
		097,075	491,000		
Cash Flows from Non-Capital and Related Financing Activities:					
Transfer to Sewage Utility	1,518	-	-		
Interfund loan to Sewage Utility		-	(1,715,000)		
Net Cash from Non-Capital					
and Related Financing Activities:	1,518	-	(1,715,000)		
Cash Flows from Capital and Related Financing Activities:					
Additions to utility plant	(564,144)	(1,218,880)	(689,945)		
Loss on sale of asset	(11,886)	-	-		
Proceeds from tap fees	208,588	132,697	135,961		
Proceeds from reconnect fees	65,800	65,040	61,120		
Proceeds from rental income	85,200	85,200	85,200		
Proceeds from contributions	80,770	-	-		
Net Cash from Capital Financing					
Activities	(135,672)	(935,943)	(407,664)		
Cash Flows from Investing Activities:					
Interest income	48,242	78,580	90,716		
Investments sold/purchased	1,904,115	(663,929)	2,156,454		
Net Cash from Investing Activities	1,952,357	(585,349)	2,247,170		
Cash and Cash Equivalents:					
Increase/(Decrease)	2 757 556	(624 219)	615 572		
Beginning Balance	947,734	3,705,290	3,081,071		
Ending Balance	\$3,705,290	\$3,081,071	\$3,696,643		

(Continued on next page)

(Cont'd)

<u>COMPARATIVE STATEMENT OF CASH FLOWS</u> Increase/(Decrease) in cash and cash equivalents

	Calendar Year Ended		
	12/23/2017	12/31/2018	12/31/2019
Reconciliation of net operating revenues to cash provided from operations:			
Net Operating Revenues	(\$363,895)	(\$513,841)	(\$682,536)
Adjustments to reconcile net income to net cash provided from operating activities:			
Depreciation Expense	980,796	1,010,052	1,505,789
Change in assets and liabilities:			
Decrease (Increase) in			
Accounts receivable	461	(12,246)	50,703
Interest receivable	(2,868)	5,174	-
Materials and supplies inventory	134,740	8,043	(5,450)
Prepaid expenses	2,815	(5,805)	49,125
Increase (Decrease) in			
Accounts payable	37,698	78,531	27,355
Taxes payable	(501)	(2,393)	(1,087)
Customer deposits payable	1,837	1,655	3,133
Net pension liability	(60,321)	83,468	103,170
Salaries and wages payable	(6,268)	(46,460)	79,501
Adjustment to net position	214,859	290,895	(638,637)
Net Cash Provided from			
Operations	\$939,353	\$897,073	\$491,066

<u>COMPARISON OF ACCOUNT BALANCES WITH</u> <u>MINIMUM BALANCES RECOMMENDED</u>

	Account Balances	Minimum Balance	
Cash and Investments:	12/31/2019	Recommended (1)	Variance
Operating Fund (2)	\$1,336,902	\$539,800	\$797,102
Depreciation Fund (3)	2,193,220	3,517,480	(1,324,260)
Customer Deposit Fund (4)	166,521	166,521	-
Pension Fund (5)	4,121,348	4,121,348	-
Totals	\$7,817,991	\$8,345,149	(\$527,158)

(1) Recommended Reserves: Balances recommended per typical management practices.

(2) <u>Operating and Maintenance Fund:</u> The balance maintained in the operation and maintenance account should be sufficient to pay the expenses of operation, repair, and maintenance of the utility for the next 45 days.

Pro forma operation and maintenance expense	\$4,967,911
Less pro forma purchased power	(649,493)
Sub-total	4,318,418
Times factor for 45 days	12.50%
Required Reserve	\$539,800
Depreciation Fund : No minimum balance required. However, as a general rule an amount equal to one year's budgeted capital expenditures is typically maintained in this account to provide a funding source for ongoing capital improvements.	
One year's budgeted depreciation expense	\$1,652,480
Plus additional planned cash expenditures	3,480,000
Less loan to Sewer	(1,715,000)
Plus loss of revenue from COVID and governors orders	100,000
Minimum balance suggested	\$3,517,480

- (4) **<u>Customer Deposit Fund</u>**: Balance is restricted for return to customers.
- (5) **Pension Fund**: Balance is restricted for pension liability.

(3)

Cause No. 45427 Attachment DLB-1 Page 14 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

PRO FORMA FINANCIAL DATA

SCHEDULE OF ESTIMATED PROJECT COSTS AND FUNDING

(Per Consulting Engineers)

	Interim Financing (BAN)	Long-Term Proiects (Bonds)
Capital Projects Budget		_
2 New Wells in South Wellfield #18 & #19 construction	\$1,448,585	
Wells and raw water design	254,000	
South wellfield modeling	135,000	
9th St Water Main Replacement Frank to Laf construction	130,000	
Jackson-8th-Gladstone Bid - construction	1,238,951	
Main replacement prioritization	152,800	
Jackson-8th-Gladstone design	63,500	
4-log removal engineering	65,000	
Water plant 2 valves	25,000	
Master plan implementation	50,000	
Booster station design	100,000	
Construction contingencies	157,200	
BAN Payoff		\$2,500,000
Wells and Raw Water		4,600,000
Main Projects		6,510,000 (1)
Lift 3 water towers		1,500,000
New Storage Tank		3,000,000
New Water Plant Design, Scoping & PILOT		2,650,000
Transmission mains		755,000 (1)
Booster Stations		2,200,000
Sub-total Construction Costs, Contingencies		
and Engineering	3,820,036	23,715,000
Plus allowance for legal, bond counsel, financial advisory		
general project contingencies and rounding	444,964 (2	2) 200,000 (2)
Totals	\$4,265,000	\$23,915,000
Estimated Funding		
Cash available	\$1,765,000	
Proposed BANs	2,500,000	
Plus loan repayment from sewer		\$1,715,000
Waterworks revenue Bonds - 20 year SRF		14,725,000
Waterworks revenue Bonds - 35 year SRF		7,475,000
Total Estimated Funding	\$4,265,000	\$23,915,000

(1) Project costs eligible for 35 year amortization thorugh SRF.

(2) Allocated pro rata to constructions costs, contingencies and engineering.

SCHEDULE OF AMORTIZATION OF \$14,725,000 PRINCIPAL AMOUNT OF PROPOSED WATERWORKS REVENUE BONDS, SERIES 2021A Interest and Principal payable semi-annually January 1st and July 1st. Assumed interest rate as shown.

Assumes bonds dated August 2, 2021.

			Assumed			
Payment	Principal		Interest	Debt \$	Debt Service	
Date	Balance	Principal	Rate	Interest	Total	Total
	(In \$1,	000's)	(%)	(In Dollars)
	• • • • • • •					
01/01/22	\$14,725			\$182,835.42	\$182,835.42	\$182,835.42
07/01/22	14,725			220,875.00	220,875.00	
01/01/23	14,725	• • -- <i>i</i>		220,875.00	220,875.00	441,750.00
07/01/23	14,725	\$271	3.00	220,875.00	491,875.00	
01/01/24	14,454	275	3.00	216,810.00	491,810.00	983,685.00
07/01/24	14,179	280	3.00	212,685.00	492,685.00	
01/01/25	13,899	284	3.00	208,485.00	492,485.00	985,170.00
07/01/25	13,615	288	3.00	204,225.00	492,225.00	
01/01/26	13,327	292	3.00	199,905.00	491,905.00	984,130.00
07/01/26	13,035	297	3.00	195,525.00	492,525.00	
01/01/27	12,738	301	3.00	191,070.00	492,070.00	984,595.00
07/01/27	12,437	306	3.00	186,555.00	492,555.00	
01/01/28	12,131	310	3.00	181,965.00	491,965.00	984,520.00
07/01/28	11,821	315	3.00	177,315.00	492,315.00	
01/01/29	11,506	320	3.00	172,590.00	492,590.00	984,905.00
07/01/29	11,186	324	3.00	167,790.00	491,790.00	
01/01/30	10,862	329	3.00	162,930.00	491,930.00	983,720.00
07/01/30	10,533	334	3.00	157,995.00	491,995.00	
01/01/31	10,199	339	3.00	152,985.00	491,985.00	983,980.00
07/01/31	9,860	344	3.00	147,900.00	491,900.00	
01/01/32	9,516	349	3.00	142,740.00	491,740.00	983,640.00
07/01/32	9,167	355	3.00	137,505.00	492,505.00	
01/01/33	8,812	360	3.00	132,180.00	492,180.00	984,685.00
07/01/33	8,452	365	3.00	126,780.00	491,780.00	
01/01/34	8,087	371	3.00	121,305.00	492,305.00	984,085.00
07/01/34	7,716	377	3.00	115,740.00	492,740.00	
01/01/35	7,339	382	3.00	110,085.00	492,085.00	984,825.00
07/01/35	6,957	388	3.00	104,355.00	492,355.00	
01/01/36	6,569	394	3.00	98,535.00	492,535.00	984,890.00
07/01/36	6,175	400	3.00	92,625.00	492,625.00	
01/01/37	5,775	406	3.00	86,625.00	492,625.00	985,250.00
07/01/37	5,369	412	3.00	80,535.00	492,535.00	
01/01/38	4,957	418	3.00	74,355.00	492,355.00	984,890.00
07/01/38	4,539	424	3.00	68,085.00	492,085.00	
01/01/39	4,115	430	3.00	61,725.00	491,725.00	983,810.00
07/01/39	3,685	437	3.00	55,275.00	492,275.00	
01/01/40	3,248	443	3.00	48,720.00	491,720.00	983,995.00
07/01/40	2,805	450	3.00	42,075.00	492,075.00	
01/01/41	2,355	457	3.00	35,325.00	492,325.00	984,400.00
07/01/41	1,898	464	3.00	28,470.00	492,470.00	
01/01/42	1,434	471	3.00	21,510.00	492,510.00	984,980.00
07/01/42	963	478	3.00	14,445.00	492,445.00	
01/01/43	485	485	3.00	7,275.00	492,275.00	984,720.00
Totals		\$14,725		\$5,588,460.42	\$20,313,460.42	\$20,313,460.42
Average ann	ual debt service	e for the five bo	nd years endi	ng January 1, 2028		\$984,420.00

SCHEDULE OF AMORTIZATION OF \$7,475,000 PRINCIPAL AMOUNT OF PROPOSED WATERWORKS REVENUE BONDS, SERIES 2021B Interest and Principal payable semi-annually January 1st and July 1st. Assumed interest rate as shown. Assumes bonds dated August 2, 2021.

Assumed Payment Principal Interest **Debt Service** Bond Year Date Balance Rate Interest Total Total Principal (-----In \$1,000's-----) (%) -In Dollars--) 01/01/22 \$7,475 \$102,096.04 \$102,096.04 \$102,096.04 07/01/22 7,475 123,337.50 123,337.50 01/01/23 7,475 123,337.50 123,337.50 246,675.00 7,475 \$63 07/01/23 3.30 123,337.50 186,337.50 122,298.00 01/01/24 7,412 64 3.30 186,298.00 372,635.50 07/01/24 7,348 66 3.30 187,242.00 121,242.00 01/01/25 7,282 67 3.30 120,153.00 187,153.00 374,395.00 07/01/25 7,215 68 3.30 119,047.50 187,047.50 7,147 69 3.30 01/01/26 117,925.50 186,925.50 373,973.00 7,078 70 3.30 07/01/26 116,787.00 186,787.00 7,008 71 01/01/27 3.30 115,632.00 186,632.00 373,419.00 07/01/27 6,937 72 3.30 114,460.50 186,460.50 6,865 74 01/01/28 3.30 113,272.50 187,272.50 373,733.00 75 3.30 07/01/28 6,791 112,051.50 187,051.50 76 01/01/29 6,716 3.30 110,814.00 186,814.00 373,865.50 07/01/29 6,640 77 3.30 109,560.00 186,560.00 01/01/30 6.563 78 3.30 108,289.50 186.289.50 372,849.50 07/01/30 6,485 80 3.30 107,002.50 187,002.50 01/01/31 6.405 81 3.30 105,682.50 186,682.50 373,685.00 07/01/31 6,324 82 3.30 104.346.00 186.346.00 01/01/32 6,242 84 3.30 102,993.00 186,993.00 373,339.00 07/01/32 6,158 85 3.30 101,607.00 186,607.00 01/01/33 6,073 87 3.30 100,204.50 187,204.50 373,811.50 07/01/33 5,986 88 3.30 98,769.00 186,769.00 01/01/34 5,898 89 3.30 97,317.00 186,317.00 373,086.00 07/01/34 5,809 91 3.30 95,848.50 186,848.50 01/01/35 5,718 92 3.30 94,347.00 186,347.00 373,195.50 07/01/35 5,626 94 3.30 92,829.00 186,829.00 95 01/01/36 5,532 3.30 91,278.00 186,278.00 373,107.00 07/01/36 5,437 97 3.30 89,710.50 186,710.50 187,110.00 01/01/37 5,340 99 3.30 88,110.00 373,820.50 5,241 186,476.50 07/01/37 100 3.30 86,476.50 102 84,826.50 186,826.50 01/01/38 5,141 3.30 373,303.00 07/01/38 5,039 104 3.30 83,143.50 187,143.50 01/01/39 4,935 105 3.30 81,427.50 186,427.50 373,571.00 07/01/39 4,830 107 3.30 79,695.00 186,695.00 4,723 109 01/01/40 3.30 77,929.50 186,929.50 373,624.50 07/01/40 4,614 111 3.30 76,131.00 187,131.00 01/01/41 4,503 112 3.30 74,299.50 186,299.50 373,430.50 Sub-totals \$3,084 \$3,987,615.04 \$7,071,615.04 \$7,071,615.04

(Continued on next page)

(Cont'd)

SCHEDULE OF AMORTIZATION OF \$7,475,000 PRINCIPAL AMOUNT OF PROPOSED WATERWORKS REVENUE BONDS, SERIES 2021B Interest and Principal payable semi-annually January 1st and July 1st. Assumed interest rate as shown.

Assumes bonds dated August 2, 2021.

			Assumed			
Payment	Principal		Interest	Debt	Service	Bond Year
Date	Balance	Principal	Rate	Interest	Total	Total
	(In \$1	l,000's)	(%)	(In Dollars)
Sub-totals c	arried					
forward		\$3,084		\$3,987,615.04	\$7,071,615.04	\$7,071,615.04
07/01/41	\$4,391	114	3.30	72,451.50	186,451.50	
01/01/42	4,277	116	3.30	70,570.50	186,570.50	373,022.00
07/01/42	4,161	118	3.30	68,656.50	186,656.50	
01/01/43	4,043	120	3.30	66,709.50	186,709.50	373,366.00
07/01/43	3,923	122	3.30	64,729.50	186,729.50	
01/01/44	3,801	124	3.30	62,716.50	186,716.50	373,446.00
07/01/44	3,677	126	3.30	60,670.50	186,670.50	
01/01/45	3,551	128	3.30	58,591.50	186,591.50	373,262.00
07/01/45	3,423	130	3.30	56,479.50	186,479.50	
01/01/46	3,293	132	3.30	54,334.50	186,334.50	372,814.00
07/01/46	3,161	135	3.30	52,156.50	187,156.50	
01/01/47	3,026	137	3.30	49,929.00	186,929.00	374,085.50
07/01/47	2,889	139	3.30	47,668.50	186,668.50	
01/01/48	2,750	141	3.30	45,375.00	186,375.00	373,043.50
07/01/48	2,609	144	3.30	43,048.50	187,048.50	
01/01/49	2,465	146	3.30	40,672.50	186,672.50	373,721.00
07/01/49	2,319	149	3.30	38,263.50	187,263.50	
01/01/50	2,170	151	3.30	35,805.00	186,805.00	374,068.50
07/01/50	2,019	153	3.30	33,313.50	186,313.50	
01/01/51	1,866	156	3.30	30,789.00	186,789.00	373,102.50
07/01/51	1,710	159	3.30	28,215.00	187,215.00	
01/01/52	1,551	161	3.30	25,591.50	186,591.50	373,806.50
07/01/52	1,390	164	3.30	22,935.00	186,935.00	
01/01/53	1,226	167	3.30	20,229.00	187,229.00	374,164.00
07/01/53	1,059	169	3.30	17,473.50	186,473.50	
01/01/54	890	172	3.30	14,685.00	186,685.00	373,158.50
07/01/54	718	175	3.30	11,847.00	186,847.00	
01/01/55	543	178	3.30	8,959.50	186,959.50	373,806.50
07/01/55	365	181	3.30	6,022.50	187,022.50	,
01/01/56	184	184	3.30	3,036.00	187,036.00	374,058.50
Totals		\$7,475		\$5,199,540.04	\$12,674,540.04	\$12,674,540.04

Average annual debt service for the five bond years ending January 1, 2028

\$373,631.10

SCHEDULE OF PROPOSED COMBINED BOND AMORTIZATION

Bond Year	Propo	Proposed		Bond	
Ending	2021A Bonds	2021B Bonds	Total	Year Total	
01/01/22	\$182,835.42	\$102,096.04	\$284,931.46	\$284,931.46	
07/01/22	220,875.00	123,337.50	344,212.50		
01/01/23	220,875.00	123,337.50	344,212.50	688,425.00	
07/01/23	491,875.00	186,337.50	678,212.50		
01/01/24	491,810.00	186,298.00	678,108.00	1,356,320.50	
07/01/24	492,685.00	187,242.00	679,927.00		
01/01/25	492,485.00	187,153.00	679,638.00	1,359,565.00 *	
07/01/25	492,225.00	187,047.50	679,272.50		
01/01/26	491,905.00	186,925.50	678,830.50	1,358,103.00	
07/01/26	492,525.00	186,787.00	679,312.00		
01/01/27	492,070.00	186,632.00	678,702.00	1,358,014.00	
07/01/27	492,555.00	186,460.50	679,015.50		
01/01/28	491,965.00	187,272.50	679,237.50	1,358,253.00	
07/01/28	492,315.00	187,051.50	679,366.50		
01/01/29	492,590.00	186,814.00	679,404.00	1,358,770.50	
07/01/29	491,790.00	186,560.00	678,350.00		
01/01/30	491,930.00	186,289.50	678,219.50	1,356,569.50	
07/01/30	491,995.00	187,002.50	678,997.50		
01/01/31	491,985.00	186,682.50	678,667.50	1,357,665.00	
07/01/31	491,900.00	186,346.00	678,246.00		
01/01/32	491,740.00	186,993.00	678,733.00	1,356,979.00	
07/01/32	492,505.00	186,607.00	679,112.00		
01/01/33	492,180.00	187,204.50	679,384.50	1,358,496.50	
07/01/33	491,780.00	186,769.00	678,549.00		
01/01/34	492,305.00	186,317.00	678,622.00	1,357,171.00	
07/01/34	492,740.00	186,848.50	679,588.50		
01/01/35	492,085.00	186,347.00	678,432.00	1,358,020.50	
07/01/35	492,355.00	186,829.00	679,184.00		
01/01/36	492,535.00	186,278.00	678,813.00	1,357,997.00	
07/01/36	492,625.00	186,710.50	679,335.50		
01/01/37	492,625.00	187,110.00	679,735.00	1,359,070.50	
07/01/37	492,535.00	186,476.50	679,011.50		
01/01/38	492,355.00	186,826.50	679,181.50	1,358,193.00	
07/01/38	492,085.00	187,143.50	679,228.50		
01/01/39	491,725.00	186,427.50	678,152.50	1,357,381.00	
07/01/39	492,275.00	186,695.00	678,970.00		
01/01/40	491,720.00	186,929.50	678,649.50	1,357,619.50	
Sub-totals	\$17,359,360.42	\$6,698,184.54	\$24,057,544.96	\$24,057,544.96	

(Continued on next page)

(Cont'd)

SCHEDULE OF PROPOSED COMBINED BOND AMORTIZATION

Bond Year	Prop	osed		Bond
Ending	2021A Bonds	2021B Bonds	Total	Year Total
Sub-totals carried				
forward	\$17,359,360.42	\$6,698,184.54	\$24,057,544.96	\$24,057,544.96
07/01/40	492,075.00	187,131.00	679,206.00	
01/01/41	492,325.00	186,299.50	678,624.50	1,357,830.50
07/01/41	492,470.00	186,451.50	678,921.50	
01/01/42	492,510.00	186,570.50	679,080.50	1,358,002.00
07/01/42	492,445.00	186,656.50	679,101.50	
01/01/43	492,275.00	186,709.50	678,984.50	1,358,086.00
07/01/43		186,729.50	186,729.50	
01/01/44		186,716.50	186,716.50	373,446.00
07/01/44		186,670.50	186,670.50	
01/01/45		186,591.50	186,591.50	373,262.00
07/01/45		186,479.50	186,479.50	
01/01/46		186,334.50	186,334.50	372,814.00
07/01/46		187,156.50	187,156.50	
01/01/47		186,929.00	186,929.00	374,085.50
07/01/47		186,668.50	186,668.50	
01/01/48		186,375.00	186,375.00	373,043.50
07/01/48		187,048.50	187,048.50	
01/01/49		186,672.50	186,672.50	373,721.00
07/01/49		187,263.50	187,263.50	
01/01/50		186,805.00	186,805.00	374,068.50
07/01/50		186,313.50	186,313.50	
01/01/51		186,789.00	186,789.00	373,102.50
07/01/51		187,215.00	187,215.00	
01/01/52		186,591.50	186,591.50	373,806.50
07/01/52		186,935.00	186,935.00	
01/01/53		187,229.00	187,229.00	374,164.00
07/01/53		186,473.50	186,473.50	,
01/01/54		186,685.00	186,685.00	373,158.50
07/01/54		186,847.00	186,847.00	,
01/01/55		186.959.50	186.959.50	373.806.50
07/01/55		187,022,50	187,022,50	,
01/01/56		187,036.00	187,036.00	374,058.50
Totals	\$20,313,460.42	\$12,674,540.04	\$32,988,000.46	\$32,988,000.46

Average annual debt service for the five bond years ending January 1, 2028

\$1,358,051.10

*Combined maximum annual debt service.

PRO FORMA OPERATION AND MAINTENANCE EXPENSE

See Explanation of Adjustments, pages 17 through 19.

	12 Months			
	Ended			
	12/31/19	Adjustments	Reference	Pro Forma
	(Unaudited)			
Treatment Plant:				
Salaries and wages	\$384,815	\$69,140	(1)	\$453,955
Miscellaneous	14,841			14,841
Transportation	6,449			6,449
Materials and supplies	10,766			10,766
Rent	6,239			6,239
Contractual services	10,026			10,026
Purchased power	571,737	77,756	(7)	649,493
Utilities	10,739			10,739
Chemicals	136,408			136,408
Repairs and maintenance	267,793	39,917	(8)	307,710
Sub-totals	1,419,813	186,813		1,606,626
Distribution System:				
Salaries and wages	544,814	76.473	(1)	621.287
Miscellaneous	1,043	-, -	()	1.043
Materials and supplies	53,885			53.885
Repairs and maintenance	272,067	132.352	(8)	404,419
Transportation	19,424		(-)	19,424
Sub-totals	891,233	208,825		1,100,058
Engineering:				
Salaries and wages	97,864	21,994	(1)	119,858
Miscellaneous	4,775		()	4,775
Transportation	714			714
Materials and supplies	3,423			3,423
Repairs and maintenance	181			181
Sub-totals	106,957	21,994		128,951
Administrative and General:				
Salaries and wages	359,429	297,149	(1)	656,578
Employee pensions and benefits	318,140	472,458	(2)(3)(4)	790,598
Rent	90,000			90,000
Utilities	21,384			21,384
Transportation	6,007			6.007
Repairs and maintenance	71,215			71.215
Materials and supplies	16,903			16,903
Contractual services	292,287			292.287
Insurance	51,718	2 282	(5)	54 000
Utility receipts tax	57,429	(2.084)	(6)	55 345
Miscellaneous	77,959	(2,004)	(0)	77,959
Sub-totals	1,362,471	769,805		2,132,276
Totals	\$3,780,474	\$1,187,437		\$4,967,911

(Continued on next page)

(Cont'd)

PRO FORMA OPERATION AND MAINTENANCE EXPENSE

Explanation of Adjustments

Adjustment (1) - Salaries and Wages

To adjust test year salaries and wages to reflect pro forma staffing levels and pro forma pay rates, per utility management.

Allocation by Department	Treatment Plant	Distribution System	Engineering	Administration and General
Pro forma salaries and wages Less test year expense	\$453,955 (384,815)	\$621,287 (544,814)	\$119,858 (97,864)	\$656,578 (359,429)
Adjustment	\$69,140	\$76,473	\$21,994	\$297,149
Total Adjustment				\$464,756
	<u>Adjustme</u>	ent (2) - FICA		
To adjust test year FICA expense for	pro forma salaries and v	wages.		
Pro forma salaries and wages Times 7.65%				\$1,851,678 7.65%
Sub-total Less test year expense				141,653 (94,968)
Adjustment				\$46,685
	Adjustmen	<u>t (3) - Pension</u>		
To adjust test year pension contribution	on equal to test year per	nsion expense.		
Actual test year pension expense				\$157 695

Less test year pension expense recorded	103,821
Adjustment	\$261,516

(Continued on next page)

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY <u>PRO FORMA OPERATION AND MAINTENANCE EXPENSE</u> Explanation of Adjustments <u>Adjustment (4) - Health Insurance</u>	Attachment DLB-1 Page 23 of 66 (Cont'd)
To adjust test year employee benefits for the most recent monthly insurance premiums.	
Pro forma health insurance expense Additional employees estimated health insurance (\$7,500 per employee) Less test year expense	\$442,500 48,750 (326,993)
Adjustment	\$164,257
Adjustment (5) - Insurance	
To adjust test year employee benefits for the most recent monthly insurance premiums.	
Pro forma insurance expense Less test year expense	\$54,000 (51,718)
Adjustment	\$2,282
Adjustment (6) - Utility Receipts Tax	
To adjust the test year to reflect pro forma utility receipts tax.	
Test year sales Less deduction	\$3,954,199 (1,000)
Total sales subject to tax Times URT percentage	3,953,199 <u>1.4%</u>
Pro forma amount Less test year amount	55,345 (57,429)
Adjustment	(\$2,084)
Adjustment (7) - Purchased Power	
To adjust test year employee benefits for the most recent rates and charges.	
Pro forma purchased power expense (13.6% increase) Less test year expense	\$649,493 (571,737)
Adjustment	\$77,756
(Continued on next page)	

Cause No. 45427

	со	LUMBUS (INDIANA) MUNICIPAL WATER UTILITY	Cause No. 45427 Attachment DLB-1 Page 24 of 66
	PRO F	(Cont'd)	
		Adjustment (8) - Periodic Maintenance	
То	adjust test year periodic maintenan	ce expenses on valves and water tanks per management.	
I.	<u>Hydrant Flow Testing and Valve M</u> (\$129,500 contract over 4 years)	laintenance	\$32,375
II.	. <u>Tank Maintenance</u> a.	Tower # 1, 4 and 5 contract	92,466
	b.	Tower # 2 estimate	51,365
	с.	Tower # 3 estimate	65,561
111.	Well Maintenance		125,000
IV.	Chemical Feed System Maintenar	ice	8,066
V.	Generator Maintenance		1,200
VI.	Plant Meter Maintenance		1,200
VII.	Booster Station Maintenance		5,000
VIII.	Gravity Filter Maintenance		9,000
IX.	High Service Pump Maintenance		6,000
X.	Hoist Maintenance		750
XI.	Fire Extinguisher Maintenance		378
XII.	Boiler/HVAC Maintenance		1,295
	Total Less test year expense		399,656 (227,387)_
	Adjustment		\$172,269

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES

See Explanation of Adjustments, pages 21 to 27.

	12 Months		
	Ended		Normalized
Operating Revenues	12/31/2019	Adjustments	Revenues
Water sales	\$3,689,326	\$3,198 *	\$3,692,524
Fire protection	761,584	(7,348) (7)	754,236
Penalties	18,783		18,783
Miscellaneous revenue	134,034		134,034
	\$4,603,727	(\$4,150)	\$4,599,577

* Adjustments 1 through 6.

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 26 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (1)

To adjust test year residential revenues to normalize for the estimated financial effects of approximately 130 more users to the system from the beginning of the test year. (based on billing records)

			Times		
	Existing	Increase	Additional	ŀ	Additional
Billing	Customers	(Decrease)	Monthly		Monthly
Cycle	Billed	`in Users ´	Bills		Bills
January 2019	14,524	-			-
February 2019	14,510	(14)	1		(14)
March 2019	14,533	23	2		46
April 2019	14,537	4	3		12
May 2019	14,553	16	4		64
June 2019	14,580	27	5		135
July 2019	14,595	15	6		90
August 2019	14,607	12	7		84
September 2019	14,630	23	8		184
October 2019	14,625	(5)	9		(45)
November 2019	14,620	(5)	10		(50)
December 2019	14,654	34	11		374
Tota	ls	130			880
Times estimated reside	ential monthly bill for				
4,262 gallons at existin	ig rates assuming a	5/8" meter		x	\$10.24
Tota	I normalized increase	e (decrease) in			
rev	enues for residential	customers (adjustm	nent)		\$9,011

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 27 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (2)

To adjust test year apartment revenues to normalize for the estimated financial effects of approximately 4 more users to the system from the beginning of the test year. (based on billing records)

			Times	
	Existing	Increase	Additional	Additional
Billing	Customers	(Decrease)	Monthly	Monthly
Cycle	Billed	in Users	Bills	Bills
January 2019	957	-		-
February 2019	950	(7)	1	(7)
March 2019	955	5	2	10
April 2019	962	7	3	21
May 2019	968	6	4	24
June 2019	971	3	5	15
July 2019	971	-	6	-
August 2019	969	(2)	7	(14)
September 2019	978	9	8	72
October 2019	974	(4)	9	(36)
November 2019	973	(1)	10	(10)
December 2019	961	(12)	11	(132)
Tota	ls	4		(57)
Times estimated apart	ment monthly bill for			
21,400 gallons at exist	ing rates assuming a	1" meter		x \$35.80
Tota	I normalized increase	e (decrease) in	pent)	(\$2,040)
100	chuco iui aparunent	ousioners (aujusin		(ψ <u>2</u> ,0 4 0)

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 28 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (3)

To adjust test year commercial revenues to normalize for the estimated financial effects of approximately 11 less users to the system from the beginning of the test year. (based on billing records)

			Times	
	Existing	Increase	Additional	Additional
Billing	Customers	(Decrease)	Monthly	Monthly
Cycle	Billed	in Users	Bills	Bills
January 2019	1,196	-		-
February 2019	1,197	1	1	1
March 2019	1,191	(6)	2	(12)
April 2019	1,192	1	3	3
May 2019	1,191	(1)	4	(4)
June 2019	1,195	4	5	20
July 2019	1,194	(1)	6	(6)
August 2019	1,187	(7)	7	(49)
September 2019	1,186	(1)	8	(8)
October 2019	1,187	1	9	9
November 2019	1,186	(1)	10	(10)
December 2019	1,185	(1)	11	(11)
-	Totals	(11)		(67)
Times estimated c	ommercial monthly bill for			
16,100 gallons at e	existing rates assuming a	1" meter.		x\$42.09
-	Total normalized increase	(decrease) in		
	revenues for commercial	customers (adjustr	nent)	(\$2,820)
		()	,	<u> </u>

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 29 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (4)

To adjust test year industrial revenues to normalize for the estimated financial effects of fluctuating users to the system from the beginning of the test year. (based on billing records)

			Times	
	Existing	Increase	Additional	Additional
Billing	Customers	(Decrease)	Monthly	Monthly
Cycle	Billed	`in Users ´	Bills	Bills
January 2019	111	-		-
February 2019	118	7	1	7
March 2019	118	-	2	-
April 2019	118	-	3	-
May 2019	118	-	4	-
June 2019	118	-	5	-
July 2019	118	-	6	-
August 2019	118	-	7	-
September 2019	118	-	8	-
October 2019	118	-	9	-
November 2019	119	1	10	10
December 2019	118	(1)	11	(11)
Tota	ls	7		6
Times estimated indust	trial monthly bill for			
407,100 gallons at exis	ting rates assuming	a 2" meter.		x \$465.60
Tota	I normalized increase	e (decrease) in		
reve	enues for industrial c	ustomers (adjustme	ent)	\$2,794

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 30 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (5)

To adjust test year governmental revenues to normalize for the estimated financial effects of approximately 5 more user to the system from the beginning of the test year. (based on billing records)

			Times		
	Existing	Increase	Additional	Ad	ditional
Billing	Customers	(Decrease)	Monthly	Μ	lonthly
Cycle	Billed	ìn Users ́	Bills		Bills
January 2019	58	-			-
February 2019	63	5	1		5
March 2019	63	-	2		-
April 2019	77	14	3		42
May 2019	78	1	4		4
June 2019	78	-	5		-
July 2019	78	-	6		-
August 2019	78	-	7		-
September 2019	78	-	8		-
October 2019	78	-	9		-
November 2019	77	(1)	10		(10)
December 2019	63	(14)	11		(154)
Tota	ls	5_			(113)
Times estimated gover	mmental monthly bill	for			
45,800 gallons at exist	ing rates assuming a	1" meter.		x	\$68.49
Tota	I normalized increase	e (decrease) in			(********
rev	enues for governmer	ntal customers (adju	istment)		(\$7,740)

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 31 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

Adjustment (6)

To adjust test year institutional revenues to normalize for the estimated financial effects of approximately 3 more users to the system from the beginning of the test year. (based on billing records)

			Times	
	Existing	Increase	Additional	Additional
Billing	Customers	(Decrease)	Monthly	Monthly
Cycle	Billed	`in Users ´	Bills	Bills
January 2019	150	-		-
February 2019	150	-	1	-
March 2019	151	1	2	2
April 2019	150	(1)	3	(3)
May 2019	151	1	4	4
June 2019	151	-	5	-
July 2019	151	-	6	-
August 2019	151	-	7	-
September 2019	153	2	8	16
October 2019	131	(22)	9	(198)
November 2019	153	22	10	220
December 2019	153		11	
Tota	ls	3		41
Times estimated institu	utional monthly bill fo	r		
70,300 gallons at existing rates assuming a 1.5" meter.				
Tota	I normalized increase	e (decrease) in		
rev	enues for institutiona	Il customers (adjusti	ment)	\$3,993

(Continued on next page)

(Cont'd)

=

CALCULATION OF NORMALIZED ANNUAL OPERATING REVENUES (Explanation of Adjustments)

(A) Fire pro	otection						
.,			Times				
Fire Protection Charge Customer count as of December 2019			Rate per	Revenue	Revenue		
			Month	Per Month	Per Year		
5/8 - 3/4	Inch meter	15,837	\$1.65	\$26,131	\$313,572		
1	Inch meter	381	4.22	1,608	19,296		
1 1/2	Inch meter	207	9.50	1,967	23,604		
2	Inch meter	261	16.90	4,411	52,932		
3	Inch meter	71	38.02	2,699	32,388		
4	Inch meter	53	67.58	3,582	42,984		
6	Inch meter	21	152.06	3,193	38,316		
10	Inch meter	1	422.40	422	5,064		
	Sub-totals	16,832		44,013	528,156		
(B) Sprinkl	ers						
			Times				
	Sprinkler Charge	e	Rate per	Revenue	Revenue		
Custome	r count as of Dece	ember 2019	Month	Per Month	Per Year		
2	Inch meter	5	\$2.45	\$12	\$144		
3	Inch meter	1	6.00	6	72		
4	Inch meter	56	10.91	611	7,332		
6	Inch meter	151	24.14	3,645	43,740		
8	Inch meter	75	43.01	3,226	38,712		
10	Inch meter	23	66.90	1,539	18,468		
12	Inch meter	2	96.33	193	2,316		
	Sub-totals	313		9,232	110,784		
(C) Private	e Hydrants						
-			Times				
	Private Hydrant	t	Rate per	Revenue	Revenue		
count as of December 2019			Month	Per Month	Per Year		
398			\$24.14	\$9,608	\$115,296		
Pro forma	fire protection ser	vice revenues			754,236		
Test year f	ire protection serv	vices			(761,584)		
	Adjustment				(\$7,348)		

SCHEDULE OF ADDITIONS TO UTILITY PLANT AND ANNUAL DEPRECIATION EXPENSE (Unaudited)

I. Calculation of historical average additions to plant funded through operating receipts.

II.

Calendar		
Year	Additions	
2010	\$1.954.337	
2011	1,030,116	
2012	1,005,300	
2013	764,752	
2014	488,963	
2015	426,027	
2016	685,029	
2017	564,144	
2018	1,218,880	
2019	1,684,070	
Total additions to utility plant		\$9,821,618
Divide by period covered (10 years)		10
Average annual additions to plant funded through rates		\$982,162
Calculation of annual depreciation expense:	Current	With Project
Depreciable utility plant in service	\$57,181,547	\$57,181,547
Less land	(237,523)	(237,523)
Plus project		25,680,000
Sub-total	56,944,024	82,624,024
Times composite depreciation rate	2.0%	2.0%
Annual depreciation expense	\$1,138,880	\$1,652,480

PRO FORMA ANNUAL REVENUE REQUIREMENTS AND ANNUAL OPERATING REVENUES See Explanation of References, page 30

	Calendar Year			Phase I			Phase II			Phase II
	2019	Adjustments	Ref.	Pro Forma	Adjustments	Ref.	Pro Forma	Adjustments	Ref.	Pro Forma
				8/1/2021			1/1/2023			1/1/2024
Annual Revenue Requirements:										
Operation and Maintenance Expenses	\$3,780,474	\$1,187,437	(1)	\$4,967,911	\$-		\$4,967,911	\$-		\$4,967,911
Additional Utility Receipts Tax (1.4%)		24,146	(2)	24,146	13,331	(2)	37,477	6,469	(2)	43,946
Total Operating Expenses	3,780,474	1,211,583		4,992,057	13,331		5,005,388	6,469		5,011,857
Debt Service: Proposed 2021 Bonds	-	688,425	(3)	688,425	669,626	(3)	1,358,051	-	(3)	1,358,051
Debt Service Reserve	-	271,610	(4)	271,610	-		271,610	-		271,610
Depreciation Expense	689,945	60,055	(5)	750,000	388,880	(5)	1,138,880	513,600	(5)	1,652,480
Total Annual Revenue Requirements	4,470,419	2,231,673		6,702,092	1,071,837		7,773,929	520,069		8,293,998
Less Penalties	(18,783)	-	(6)	(18,783)	-		(18,783)	-		(18,783)
Less Reconnect Fees	(61,120)	-	(6)	(61,120)	-		(61,120)	-		(61,120)
Less Miscellaneous Revenues	(134,034)	-	(6)	(134,034)	-		(134,034)	-		(134,034)
Less Interest Income	(90,716)	75,892	(7)	(14,824)	-		(14,824)	-		(14,824)
Less Rental Income	(85,200)		(6)	(85,200)			(85,200)			(85,200)
Net Annual Revenue Requirements	\$4,080,566	\$2,307,565		\$6,388,131	\$1,071,837		\$7,459,968	\$520,069		\$7,980,037
Annual Revenues:										
Water Sales	\$3,689,326	\$3,198	(8)	\$3,692,524	\$-		\$3,692,524	\$-		\$3,692,524
Fire Protection	761,584	(7,348)	(8)	754,236	-		754,236	-		754,236
Plus revenues from rate increase					1,941,371		1,941,371	1,071,837		3,013,208
Total Annaul Operating Revenues	\$4,450,910	(\$4,150)		\$4,446,760	\$1,941,371		\$6,388,131	\$1,071,837		\$7,459,968
Additional Revenue Required				\$1,941,371			\$1,071,837			\$520,069

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 35 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

PRO FORMA ANNUAL REVENUE REQUIREMENTS AND ANNUAL OPERATING REVENUES (Explanation of References)

- (1) See "Pro Forma Operation and Maintenance Expense", pages 16 19.
- (2) To provide an allowance for additional Indiana Utility Receipts tax. It is assumed only 88.84% of additional receipts will be taxable in line with the current ratio of taxable receipts for the Utility.
- (3) To provide an allowance for the average annual debt service on the proposed 2021 Bonds, assuming a bond issue of \$22,200,000. \$14,725,000 is assumed to be amortized over 20 years at an assumed interest rate of 3.0%. \$7,475,000 is assumed to be amortized over a period of 35 years at an assumed interest rate of 3.3%. See pages 11 15.
- (4) To provide an allowance for the funding of a debt service reserve over a 5 year period.
- (5) Assumed to be equal to depreciation at the IURC composite rate of 2.0%. See page 28. The Phase I amount is assumed at \$750,000 to phase in the rates to ease the burden on rate payers.
- (6) Assumed at calendar year 2019 amounts.
- (7) Assumes operating fund balance and one years budgeted capital expenditures will earn interest at a rate of 0.5% calculated as follows:

Balances available to invest:	
Operating fund (@12/31/19)	\$1,336,902
One years budgeted capital expenditures	1,627,850
Sub-total	2,964,752
Times assumed 0.5% interest rate	0.5%
Pro Forma Interest Income	\$14,824

(8) Normalized 2019 revenues for change in number of customers throughout 2019. See page 20.

Cause No. 45427 Attachment DLB-1 Page 36 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

COST OF SERVICE STUDY

SUMMARY OF TEST YEAR CONSUMER STUDY (12 Months Ended 12/31/2019)

		Number	Gallons	Calculated
Customer Class		of Bills	Sold	Revenues
Resident	ial:			
5/8 - 3/4	inch meter	194,671	821,426,110	\$1,941,897
1	inch meter	1,091	10,013,380	19,171
1 1/2	inch meter	111	729,000	1,655
2	inch meter	74	373,000	1,123
	Total Residential	195,947	832,541,490	1,963,846
Small Co	ommercial:			
5/8 - 3/4	inch meter	17,776	90,232,080	\$194,894
1	inch meter	3,758	46,336,220	81,308
1 1/2	inch meter	1,173	34,647,500	51,175
2	inch meter	2,160	74,596,800	114,238
3	inch meter	238	11,836,800	22,132
	Small Commercial	25,105	257,649,400	463,747
Large Co	ommercial:			
5/8 - 3/4	inch meter	361	12,867,130	\$16,411
1	inch meter	749	40,433,010	50,851
1 1/2	inch meter	771	26,630,600	39,472
2	inch meter	1,191	109,054,480	141,123
3	inch meter	155	23,210,200	31,871
4	inch meter	316	56,280,400	75,169
6	inch meter	132	79,558,000	91,245
	Total Large Commercial	3,675	348,033,820	446,142_

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 38 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

SUMMARY OF TEST YEAR CONSUMER STUDY (12 Months Ended 12/31/2019)

Industria	l:						
5/8 - 3/4	inch meter	133	598,000	\$1,275			
1	inch meter	187	9,133,000	11,551			
1 1/2	inch meter	89	3,227,000	4,634			
2	inch meter	407	41,309,130	49,064			
3	inch meter	233	50,994,000	63,602			
4	inch meter	297	220,248,000	225,014			
6	inch meter	104	190,559,000	187,307			
10	inch meter	15	23,910,000	24,899			
	Total Industrial	1,465	539,978,130	567,346			
Special C	Special Contract:						
•	Eastern Bartholomew	48	20,001,000	\$30,941			
	Southwestern Bartholomew	24	207,210,000	176,037			
	Total Special Contract	72	227,211,000	206,978			
	Totals	226,264	2,205,413,840	\$3,648,059			
Control				\$3,689,326			
Variance				(\$41,267)			
Percenta	ge			-1.12%			
CALCULATION OF TEST YEAR EQUIVALENT METERS

(Based upon test year service charge billings)

Cost of service cu	stomer class:	Annual Bills	Normalized Bills	Average Connections	Equivalency Factor	Equivalent Meters and Services
Residential						
5/8 - 3/4	inch meter	194,671	194,801	16,233	1.0	16,233
1	inch meter	1,091	1,091	91	2.5	228
1 1/2	inch meter	111	111	9	5.0	45
2	inch meter	74_	74	6	8.0	48
Sub-totals		195,947	196,077	16,339		16,554
Small Comme	ercial					
5/8 - 3/4	inch meter	17,776	17,776	1,481	1.0	1,481
1	inch meter	3,758	3,756	313	2.5	783
1 1/2	inch meter	1,173	1,176	98	5.0	490
2	inch meter	2,160	2,160	180	8.0	1,440
3	inch meter	238	238	20	15.0	300
Sub-totals		25,105	25,106	2,092		4,494
Large Comme	ercial					
5/8 - 3/4	inch meter	361	361	30	1.0	30
1	inch meter	749	749	62	2.5	155
1 1/2	inch meter	771	771	64	5.0	320
2	inch meter	1,191	1,191	99	8.0	792
3	inch meter	155	155	13	15.0	195
4	inch meter	316	316	26	25.0	650
6	inch meter	132	132	11	50.0	550
Sub-totals		3,675	3,675	305		2,692

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 40 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALCULATION OF TEST YEAR EQUIVALENT METERS

(Based upon test year service charge billings)

		Annual	Normalized	Averade	Equivalencv	Equivalent Meters and
Cost of service cu	stomer class:	Bills	Bills	Connections	Factor	Services
Industrial						
5/8 - 3/4	inch meter	133	133	11	1.0	11
1	inch meter	187	187	16	2.5	40
1 1/2	inch meter	89	89	7	5.0	35
2	inch meter	407	414	35	8.0	280
3	inch meter	233	233	19	15.0	285
4	inch meter	297	297	25	25.0	625
6	inch meter	104	104	9	50.0	450
10	inch meter	15_	15_	1	115.0	115
Sub-totals		1,465	1,472	123		1,841
Totals		226,192	226,330	18,859		25,581
Wholesale users:						
Eastern Barth	olomew Water					
5/8 - 3/4	inch meter	12	12	1	1.0	1
4	inch meter	24	24	2	25.0	50
6	inch meter	12	12	1	50.0	50
Sub-totals		48	48	4		101
Southwestern	Bartholomew Wate	r				
6	inch meter	24	24	2	50.0	100
Totals - Wł	nolesale	72	72	6		201

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 41 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

(Cont'd)

CALCULATION OF TEST YEAR EQUIVALENT METERS (Based upon test year billings)

					Equivalent
		Number of		Equivalency	Fire
Fire Protection		Connections		Factor (1)	Connections
Private sprinklers					
5/8 - 3/4	inch connection	-		1.00000	-
2	inch connection	5		6.19000	31.0
4	inch connection	57		38.32000	2,184.2
6	inch connection	151	(2)	111.31000	16,807.8
8	inch connection	75	(2)	237.21000	17,790.8
10	inch connection	23		426.58000	9,811.3
12	inch connection	2		689.04000	1,378.1
Private hydr	ants	392		111.31000	43,633.5
Public hydra	ints	2,187	_	111.31000	243,435.0
Totals		2,892	=		335,071.7

(1) Per M1 ed. 6, page 146.

(2) Normalized.

	Test Year		Equivalent
Cost of Service Customer Class:	Gallons	Adjustment	Gallons
Residential	832,541,490	3,750,560	836,292,050
Small Commercial	257,649,400	(4,591,600)	253,057,800
Large Commercial	348,033,820	-	348,033,820
Industrial	539,978,130	2,442,600	542,420,730
Special Contract	227,211,000		227,211,000
Totals	2,205,413,840	1,601,560	2,207,015,400

TEST YEAR UNITS OF SERVICE Base-Extra Capacity Method

	Base			Maximum Day			Maximum Hour			Customer	
Customer Class	Annual Sales (1)	Average Day (2)	Capacity Factor (3) %	Total Capacity	Extra Capacity (4) (2)	Capacity Factor (3) %	Total Capacity (2)	Extra Capacity (5) (2)	Equivalent Connections	Bills	Fire Connections
Residential	836,292.050	2,291.2	280	6,415.4	4,124.2	420	9,623.0	3,207.6	16,554	196,077	
Small Commercial	253,057.800	693.3	250	1,733.3	1,040.0	415	2,877.2	1,143.9	4,494	25,106	
Large Commercial	348,033.820	953.5	230	2,193.1	1,239.6	300	2,860.5	667.4	2,692	3,675	
Industrial	542,420.730	1,486.1	200	2,972.2	1,486.1	220	3,269.4	297.2	1,841	1,472	
Eastern Bartholomew Water	20,001.000	54.8	235	128.8	74.0	280	153.4	24.6	101	48	
Southwestern Bartholomew Water	207,210.000	567.7	180	1,021.9	454.2	220	1,248.9	227.0	100	24	
Fire Protection				840.0*	840.0		3,360.0	*2,520.0			335,072
Totals	2,207,015.400	6,046.6		15,304.7	9,258.1		23,392.4	8,087.7	25,782	226,402	335,072

(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 estimated fire requirement of 3,500 gallons per minute for a 4 hour duration.

Cause No. 45427 Attachment DLB-1 Page 43 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

ALLOCATION OF UTILITY PLANT TO FUNCTIONAL COST COMPONENTS

Base-Extra Capacity Method

	Utility Plant in		Extra Capacity Cust		Customer Direct Fire							
			Maximum	Maximum	Meters and	Protection		P	ercentage Allo	cations		
	12/31/19	Base	Day	Hour	Services	Service	BAS	MXD	MXH	CUS	FP	Ref.
Source of Supply Plant:												
Well	\$217,693	\$217,693					100.00%					(1)
Transmission and Distribution:												
Transmission and distribution mains (8)												
Transmission	9,090,162	3,591,523	\$5,498,639				39.51%	60.49%				(2)
Distribution	9,090,162	2,349,807	3,597,886	\$3,142,469			25.85%	39.58%	34.57%			(3)
Meters	1,537,483				\$1,537,483					100.00%		(4)
Distribution	1,681,325	434,623	665,468	581,234			25.85%	39.58%	34.57%			(3)
Tanks	1,497,669	149,767		1,347,902			10.00%		90.00%			(5)
Hydrants (9)	2,513,920					\$2,513,920					100.00%	(6)
Treatment:												
Water Plant 1	1,527,453	603,497	923,956				39.51%	60.49%				(2)
Water Plant 2	8,350,889	3,299,436	5,051,453				39.51%	60.49%				(2)
General Plant:	, ,		, ,									()
Engineering	88,493	26,539	39,220	12,637	3,832	6,265	29.99%	44.32%	14.28%	4.33%	7.08%	(7)
Quality Control	1,242,962	372,764	550,881	177,495	53,820	88,002	29.99%	44.32%	14.28%	4.33%	7.08%	(7)
Sub-totals	36,838,211	11,045,649	16,327,503	5,261,737	1,595,135	2,608,187						
Less Contributions: (10)	(6,572,263)	(1,971,022)	(2,912,827)	(938,519)	(284,579)	(465,316)	29.99%	44.32%	14.28%	4.33%	7.08%	(7)
Utility Plant in Service	\$30,265,948	\$9,074,627	\$13,414,676	\$4,323,218	\$1,310,556	\$2,142,871	29.99%	44.32%	14.28%	4.33%	7.08%	

(Continued on next page)

(Cont'd)

34.57%

100.00%

.

8,087.7

23,392.4

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

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.

	1,000's of	
	Gallons	%
Average deviderend	C 04C C	20 540/
Average day demand	6,046.6	39.51%
Maximum day excess capacity	9,258.1	60.49%
Totals	15,304.7	100.00%
Allocated in ratio to maximum hour demand.		
	1,000's of	
	Gallons	%
Average day demand	6,046.6	25.85%
Maximum day excess capacity	9,258.1	39.58%

Totals

(3)

(4) Allocated 100% to meters and services.

Maximum day excess capacity

Maximum hour excess capacity

- (5) Allocated 10% to base and 90% to maximum hour.
- (6) Allocated 100% to fire protection.
- (7) Allocated pro rata to all other allocable utility plant.
- (8) Mains allocated between transmission and distribution based on miles of pipes as provided by Utility management.

	%	Allocation
Transmission mains	F0.0%	¢0.000.460
Distribution mains	50.0%	\$9,090,162 9,090,162
Tatala	100.0%	¢10,100,204
Totals	100.0%	\$18,180,324

- (9) Hydrants are calculated based on a hydrant count of 2,225 at an assumed cost of \$4,000 less accumulated depreciation. Of the hydrants with an unknown installation date, 10% are assumed to be new, 10% 10 years old, 10% 20 years old, 35% 50 years old and 35% 75 years old.
- (10) Information on when contributions were contributed is not fully known, it is assumed that they are depreciated in the same ratio as the system capital assets; 39.4%.

Cause No. 45427 Attachment DLB-1 Page 45 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

ALLOCATION OF PRO FORMA OPERATION AND MAINTENANCE EXPENSES

TO FUNCTIONAL COST COMPONENTS Base-Extra Capacity Method

			Extra C	apacity	Custome	er Class	Direct Fire									
	Pro Forma	Pro Forma		Pro Forma		Maximum	Meters and	Billing and	Protection			Percentage	Allocation			
	Expense	Base	Day	Hour	Services	Collecting	Service	BAS	MXD	MXH	MET	BILL	FP	Ref.		
Treatment Plant:																
Salaries and wages	\$453,955	\$179,358	\$274,597					39.51%	60.49%					(2)		
Miscellaneous	14,841	5,864	8,977					39.51%	60.49%					(2)		
Transportation	6,449	2,548	3,901					39.51%	60.49%					(2)		
Materials and supplies	10,766	4,254	6,512					39.51%	60.49%					(2)		
Rent	6,239	2,465	3,774					39.51%	60.49%					(2)		
Contractual services	10,026	3,961	6,065					39.51%	60.49%					(2)		
Purchased power	649,493	256,615	392,878					39.51%	60.49%					(2)		
Utilities	10,739	4,243	6,496					39.51%	60.49%					(2)		
Chemicals	136,408	136,408						100.00%						(1)		
Repairs and maintenance	307,710	121.576	186.134					39.51%	60.49%					(2)		
Distribution System:	, .	,												()		
Salaries and wages	621.287	72.197	108.015	\$56,116	\$357,154		\$27.805	11.62%	17.39%	9.03%	57.49%		4.48%	(3)		
Miscellaneous	1.043	268	401	208	63		103	25.68%	38.42%	19.96%	6.05%		9.89%	(4)		
Materials and supplies	53,885	13.838	20,703	10,755	3,260		5.329	25.68%	38.42%	19.96%	6.05%		9.89%	(4)		
Repairs and maintenance	404,419	103.855	155.378	80,722	24,467		39,997	25.68%	38.42%	19.96%	6.05%		9.89%	(4)		
Transportation	19.424	4,988	7.463	3.877	1,175		1,921	25.68%	38.42%	19.96%	6.05%		9.89%	(4)		
Engineering:		.,	.,	-,	.,		.,							()		
Salaries and wages	119 858	24 895	37 863	5 549	35 334	\$13 472	2 745	20 77%	31 59%	4 63%	29 48%	11 24%	2 29%	(5)		
Miscellaneous	4 775	1 124	1 707	307	1 085	400	152	23 55%	35 75%	6.42%	22.72%	8.38%	3 18%	(6)		
Transportation	714	168	255	46	162	60	23	23 55%	35 75%	6.42%	22.72%	8.38%	3 18%	(6)		
Materials and supplies	3 4 2 3	805	1 224	220	778	287	109	23 55%	35 75%	6.42%	22.72%	8.38%	3 18%	(6)		
Renairs and maintenance	181	42	65	12	41	15	6	23 55%	35 75%	6.42%	22.72%	8.38%	3 18%	(6)		
Administrative and General	101	72	00	12		10	0	20.0070	00.7070	0.4270	22.7270	0.0070	0.1070	(0)		
Salaries and wages	656 578	108 097	164 410	24 097	153 429	194 627	11 918	16 46%	25 04%	3 67%	23 37%	29 64%	1 82%	(7)		
Employee pensions and benefits	790 598	164 207	249 750	36 605	233.068	88 863	18 105	20.77%	31 59%	4 63%	29.48%	11 24%	2 29%	(5)		
Rent	90,000	21 195	32 175	5 778	200,000	7 542	2 862	23 55%	35 75%	6.42%	20.40%	8 38%	3 18%	(6)		
litilities	21 384	6 / 11	0 477	3 054	20,110	1,042	1 514	20.00%	44 32%	14 28%	2 17%	2 17%	7.08%	(8)		
Transportation	6 007	1 4 1 4	2 148	386	1 365	503	1,014	23.55%	35 75%	6.42%	22.17%	8 38%	3 18%	(6)		
Penairs and maintenance	71 215	16 771	2,140	4 572	16 180	5 968	2 265	23.55%	35 75%	6.42%	22.7270	8 38%	3 18%	(0)		
Materials and supplies	16 003	3 081	20,409	4,572	3 840	1 / 16	2,203	23.55%	35 75%	6.42%	22.7270	8 38%	3 18%	(0)		
Contractual services	202 287	68 832	104 403	18 765	66 408	24 494	0 205	23.55%	35 75%	6.42%	22.7270	8 38%	3 18%	(0)		
Insurance	54 000	16 180	23 033	7 711	1 172	1 172	3,233	20.00%	44 32%	14 28%	22.7270	2 17%	7 08%	(0)		
Litility receipts tax	55 345	13 034	20,900	3 553	12 574	1,172	1 760	23.50%	35 75%	6 4 2%	2.17 /0	2.17 /0	3 18%	(0)		
Miscellaneous	77 050	18 360	27 870	5,005	17 712	4,030	2 470	23.55%	35 75%	6.42%	22.7270	8 38%	3 18%	(0)		
Miscellaneous	11,555	10,500	27,070	3,003	17,712	0,000	2,473	20.0070	55.7570	0.42 /0	22.1270	0.0070	5.1070	(0)		
Total operating expenses	4,967,911	1,377,963	1,887,952	268,423	950,179	350,454	132,940									
Less penalties	(18,783)	(5,211)	(7,138)	(1,014)	(3,593)	(1,324)	(503)	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%	(9)		
Less reconnect fees	(61,120)	(16,955)	(23,226)	(3,300)	(11,692)	(4,309)	(1,638)	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%	(9)		
Less miscellaneous revenue	(134,034)	(37,181)	(50,933)	(7,238)	(25,641)	(9,449)	(3,592)	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%	(9)		
Less interest income	(14,824)	(4,113)	(5,633)	(800)	(2,836)	(1,045)	(397)	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%	(9)		
Less rental income	(85,200)	(23,634)	(32,376)	(4,601)	(16,299)	(6,007)	(2,283)	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%	(9)		
Net operating expenses	\$4,653,950	\$1,290,869	\$1,768,646	\$251,470	\$890,118	\$328,320	\$124,527	27.74%	38.00%	5.40%	19.13%	7.05%	2.68%			

(Continued on next page)

(Cont'd)

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

(1) Allocated 100% to base.

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

	_Treatment Plant	%
Average day demand	\$3,902,933	39.51%
Maximum day excess capacity	5,975,409	60.49%
Totals	\$9,878,342	100.00%
10(0)5	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	

(3) Employees dedicated to meters and services allocated directly to meters and services. Remainder allocated pro rata based on the allocation of total transmission and distribution plant.

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

	Transmission and Distribution Plant	%
Average day demand	\$6,525,720	25.68%
Maximum day excess capacity	9,761,993	38.42%
Maximum hour excess capacity	5,071,605	19.96%
Meters and services	1,537,483	6.05%
Direct fire protection	2,513,920	9.89%
Totals	\$25,410,721	100.00%

- (5) Allocated pro rata based upon total salaries and wages.
- (6) Allocated in ratio to all other functionalized expenses exclusive of purchased power and chemicals.
- (7) Employees dedicated to billing allocated directly to billing. Remainder allocated pro rata based upon total salaries and wages.
- (8) Allocated pro rata based upon utility plant.
- (9) Allocated pro rata based on total functionalized operating expenses.

UNIT COSTS OF SERVICE (Test Year Ended 12/31/2019)

	Net	Allocable To All Customers									
	Pro Forma		Extra Ca	apacity	Custome	er Costs	Direct Fire				
	Revenue		Maximum	Maximum	Meters and	Billing and	Protection				
	Requirements	Base	Day	Hour	Services	Collection	Service	Ref			
	i	(1,000's of Gallons)	Equiv.	Bills	Equiv.				
		,		,	Meters		Hydrants				
Units of Service		2,207,015.4	9,258.1	8,087.7	25,782	226,402	335,072	(1)			
Projected Cost of Service											
Net operating expenses	\$4,653,950	\$1,290,869	\$1,768,646	\$251,470	\$890,118	\$328,320	\$124,527	(2)			
Additional receipts tax	43,946	10,349	15,711	2,821	9,985	3,683	1,397	(3)			
Debt service payments	1,358,051	407,279	601,888	193,930	58,804		96,150	(4)			
Debt service reserve transfers	271,610	81,455	120,378	38,786	11,761		19,230	(4)			
Depreciation expense	1,652,480	495,579	732,379	235,974	71,552		116,996	(4)			
Net cost of service	\$7,980,037	\$2,285,531	\$3,239,002	\$722,981	\$1,042,220	\$332,003	\$358,300				
Total unit cost of service		\$1.0356	\$349.8560	\$89.3927	\$40.4243	\$1.4664	\$1.0693				

(1) See "Test Year Units of Service", page 36.

(2) As calculated in "Allocation of Pro Forma Operation and Maintenance Expenses to Functional Cost Components", pages 39 - 40.

(3) Allocated in ratio to taxes, page 39.

(4) Allocated in ratio to plant values, page 37.

COST OF SERVICE ALLOCATED TO CUSTOMER CLASS (Test Year Ended 12/31/2019)

		Allocable To All Customers						
	Total		Extra Ca	apacity	Customer Costs		Direct Fire	
	Costs of		Maximum	Maximum	Meters and	Billing and	Protection	
	Service	Base	Day	Hour	Services	Collection	Service	
		(1000's of Gallons)	Equiv.	Bills	Equiv.	
					Meters		Hydrants	
Unit Costs of Service (1)	-	\$1.0356	\$349.8560	\$89.3927	\$40.4243	\$1.4664	\$1.0693	
Allocated Costs of Service								
Residential:								
Units of service (2)		836,292.1	4,124.2	3,207.6	16,554	196,077		
Cost	\$3,552,375	\$866,043	\$1,442,876	\$286,737	\$669,185	\$287,534		
Small Commercial:								
Units of service (2)		253,057.8	1,040.0	1,143.9	4,494	25,106		
Cost	946,649	\$262,060	\$363,850	\$102,256	\$181,667	\$36,816		
Large Commercial:								
Units of service (2)		348,033.8	1,239.6	667.4	2,692	3,675		
Cost	967,969	\$360,415	\$433,682	\$59,661	\$108,822	\$5,389		
Industrial:								
Units of service (2)		542,420.7	1,486.1	297.20	1,841	1,472		
Cost	1,184,786	\$561,718	\$519,921	\$26,567	\$74,421	\$2,159		
Eastern Bartholomew Water								
Units of service (2)		20,001.0	74.0	24.60	101	48		
Cost	52,954	\$20,713	\$25,889	\$2,199	\$4,083	\$70		
SouthWestern Bartholomew Water								
Units of service (2)		207,210.0	454.2	227.00	100	24		
Cost	397,856	\$214,582	\$158,905	\$20,292	\$4,042	\$35		
Fire Protection:								
Units of service (2)			840.0	2,520.0			335,072	
Cost	877,448		\$293,879	\$225,269			\$358,300	
Total allocated cost of service	\$7,980,037	\$2,285,531	\$3,239,002	\$722,981	\$1,042,220	\$332,003	\$358,300	

(1) See page 41.(2) See page 36.

Meter Size	<u>e</u>	5/8 inch Equivalency Factor	Meter Cost Per Equiv. Unit (1)	Meter Cost Per Unit	Billing Cost Per Unit (2)	Total	Rounded
5/8 - 3/4	inch meter	1.0	\$3.3687	\$3.3687	\$1.4664	\$4.8351	\$4.85
1	inch meter	2.5	3.3687	8.4218	1.4664	9.8882	9.90
1 1/2	inch meter	5.0	3.3687	16.8435	1.4664	18.3099	18.30
2	inch meter	8.0	3.3687	26.9496	1.4664	28.4160	28.40
3	inch meter	15.0	3.3687	50.5305	1.4664	51.9969	52.00
4	inch meter	25.0	3.3687	84.2175	1.4664	85.6839	85.70
6	inch meter	50.0	3.3687	168.4350	1.4664	169.9014	169.90
8	inch meter	80.0	3.3687	269.4960	1.4664	270.9624	270.95
10	inch meter	115.0	3.3687	387.4005	1.4664	388.8669	388.85
12	inch meter	215.0	3.3687	724.2705	1.4664	725.7369	725.75

CALCULATION OF PROPOSED MONTHLY SERVICE CHARGES

(1) Calculated as follows:

\$40.4243
12
\$3.3687

(2) Calculated from information shown on page 41.

ALLOCATION OF FIRE PROTECTION COST TO PUBLIC AND PRIVATE FIRE SERVICE BASED UPON ALLOCATED COST OF SERVICE

	Number of Service (1)	Demand Factor (2)	Equivalent Connections	Percentage Allocation	Allocation	Total Fire Protection (3)
Public Fire Service						
Total public hydrants	2,187	111.31	243,435	72.65%	\$377,169	\$377,169
Direct fire protection						358,300
Total public fire protection						\$735,469
Private Fire Service						
Size of						
Connection						
5/8 - 3/4 inch connection	-	1.00	0			
2 inch connection	5	6.19	31			
4 inch connection	57	38.32	2,184			
6 inch connection	151	111.31	16,808			
8 inch connection	75	237.21	17,791			
10 inch connection	23	426.58	9,811			
12 inch connection	2	689.04	1,378			
Private hydrants	392	111.31	43,634			
Sub-totals	705		91,637	27.35%	141,979	\$141,979
Direct fire protection						
Total private fire protection						\$141,979
Totals	2,892		335,072	100.00%	\$519,148	\$877,448

(1) See page 35.

(2) Per M1 ed. 6, page 146.

(3) See page 42.

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

Automatic Sprinkler Charges:

		Rate for	
Size of	Equivalency	5/8 inch	Adjusted
Connection	Ratio*	Connection	Rates**
3/4 inch connection	1.00	\$1.55	\$1.55
1 inch connection	1.00	1.55	1.55
1 1/4 inch connection	1.80	1.55	2.79
1 1/2 inch connection	2.90	1.55	4.50
2 inch connection	6.19	1.55	9.59
2 1/2 inch connection	11.13	1.55	17.25
3 inch connection	17.98	1.55	27.87
4 inch connection	38.32	1.55	59.40
6 inch connection	111.31	1.55	172.53
8 inch connection	237.21	1.55	367.68
10 inch connection	426.58	1.55	661.20
12 inch connection	689.04	1.55	1,068.01
Private hydrants	111.31	1.55	172.53

* Based on nominal size of connection raised to the 2.63 power.

**Rate for 5/8 inch equivalent connection times equivalency ratio.

Private Fire Protection

Total costs to be recovered from private fire protection, see page 44.	\$141,979
Divide by 5/8 inch equivalent fire hydrant connections, see page 44.	91,637
Annual charge per equivalent connection	\$1.55
Use (Rounded)	\$1.55

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

			Billing Deter	minante	Allocated	Pro Forma Revenue Under
		Percent		Tillianto	Cost of	
		ofUse	Consumption	Bills	Service Rates	Rates
		01030	(1 000's of Gals)	Dillo	Oct vice reales	14105
Residential:			(1,000000000000000)			
Service Cha	irde:					
5/8 - 3/4	inch meter			194,801	\$4.85	\$944,785
1	inch meter			1.091	9.90	10.801
1 1/2	inch meter			111	18.30	2.031
2	inch meter			74	28.40	2.102
Volume Cha	arge Per 1.000 Gallons:					_,
First	15	88.89%	743,370		3.16	2,349,049
Next	35	9.74%	81,482		2.64	215,112
Next	250	1.37%	11,440		2.64	30,202
Over	300	0.00%	<u>-</u>		1.83	
Sub-totals		100.00%	836,292	196,077		3,554,082
Small Commer	cial					
Service Cha	irge:					
5/8 - 3/4	inch meter			17,776	4.85	86,214
1	inch meter			3,756	9.90	37,184
1 1/2	inch meter			1,176	18.30	21,521
2	inch meter			2,160	28.40	61,344
3	inch meter			238	52.00	12,376
Volume Cha	arge Per 1,000 Gallons:					
First	15	46.06%	116,535		3.16	368,251
Next	35	27.36%	69,241		2.64	182,796
Next	250	25.23%	63,857		2.64	168,582
Over	300	1.35%	3,426		1.83	6,270
Sub-totals		100.00%	253,059	25,106		944,538
Sub-total of	carried forward to next page	•	1,089,351	221,183		4,498,620

(Continued on next page)

(Cont'd)

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

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

			Billing Determinants		Allocated	Pro Forma Revenue Under
		Percent	Annual		Cost of	Adjusted
		of Use	Consumption	Bills	Service Rates	Rates
			(1,000's of Gals)			
Sub-total carried	forward from previous page		1,089,351	221,183		\$4,498,620
Large Commerc	ial:					
Service Char	ge:					
5/8 - 3/4	inch meter			361	\$4.85	1,751
1	inch meter			749	9.90	7,415
1 1/2	inch meter			771	18.30	14,109
2	inch meter			1,191	28.40	33,824
3	inch meter			155	52.00	8,060
4	inch meter			316	85.70	27,081
6	inch meter			132	169.90	22,427
Volume Char	ge Per 1,000 Gallons:					
First	15	11.61%	40,419		3.16	127,724
Next	35	15.62%	54,375		2.64	143,550
Next	250	41.61%	144,802		2.64	382,277
Over	300	31.16%	108,439		1.83	198,443
Sub-totals	_	100.00%	348,035	3,675		966,661
Industrial:						
Service Char	ge:					
5/8 - 3/4	inch meter			133	4.85	645
1	inch meter			187	9.90	1,851
1 1/2	inch meter			89	18.30	1,629
2	inch meter			414	28.40	11,758
3	inch meter			233	52.00	12,116
4	inch meter			297	85.70	25,453
6	inch meter			104	169.90	17,670
10	inch meter			15	388.85	5,833
Volume Char	ge Per 1,000 Gallons:					
First	15	2.58%	14,025		3.16	44,319
Next	35	4.35%	23,583		2.64	62,259
Next	250	17.67%	95,846		2.64	253,033
Over	300	75.40%	408,967		1.83	748,410
Sub-totals	_	100.00%	542,421	1,472		1,184,976
Sub-total c	arried forward to next page		1,979,807	226,330		6,650,257

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 54 of 66

(Cont'd)

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

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

		Billing Deter	minants	Allocated	Pro Forma Revenue Under
_	Percent of Use	Annual Consumption (1,000's of Gals)	Bills	Cost of Service Rates	Adjusted Rates
Sub-total carried forward from previous page		1,979,807	226,330		\$6,650,257
Eatern Bartholomew					
Service Charge:					
5/8 - 3/4 inch meter			12	\$4.85	58
4 Inch meter			24	85.70	2,057
6 Inch meter	400.000/	20.004	12	169.90	2,039
Volume Charge Per 1,000 Gallons	100.00%	20,001		2.44	48,802
Sub-totals	100.00%	20,001	48		52,956
Southwestern Bartholomew					
Service Charge:					
6 inch meter			24	169.90	4,078
Volume Charge Per 1,000 Gallons	100.00%	207,210		1.90	393,699
Sub-totals	100.00%	207,210	24		397,777
Fire Protection Charge:					
Automatic Sprinkler					
5/8 - 3/4 inch connection			-	1.55	-
2 Inch connection			5	9.59	48
4 Inch connection			57 151	27.87	1,009
8 inch connection			75	367.69	20,032
10 inch connection			73	661.20	27,370
12 inch connection			23	1 068 01	2 136
Private hydrant			392	172.53	67,632
Sub-totals			705		140,241
Sub-totals carried forward to next page		2,207,018	227,107		7,241,231

(Continued on next page)

Cause No. 45427 Attachment DLB-1 Page 55 of 66

(Cont'd)

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

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

		Percent	Billing Dete Annual	rminants	Allocated Cost of	Pro Forma Revenue Under Adjusted
	_	of Use	Consumption	Bills	Service Rates	Rates
			(1,000 s of Gals)			
Sub-total carried	forward from previous page		2,207,018	227,107		\$7,241,231
Public Fire Prote	ction Charge:					
Public fire pro	tection surcharge					
5/8 - 3/4	inch meter			188,685	\$2.65	500,015
1	inch meter			4,614	6.63	30,591
1 1/2	inch meter			2,186	13.25	28,965
2	inch meter			3,126	21.20	66,271
3	inch meter			851	39.75	33,827
4	inch meter			642	66.25	42,533
6	inch meter			249	132.50	32,993
8	inch meter			11	212.00	2,332
10	inch meter			12_	304.75	3,657
Sub-totals				200,376		741,184
Total						\$7,982,415
Control						\$7,980,037
Variance						\$2,378
Variance pe	prcentage					0.03%
vanance pe	Joentage					0.0070

COMPARISON OF ALLOCATED COST OF SERVICE WITH REVENUE UNDER ADJUSTED RATES

		Normalized					
		Revenue			Revenue	Varianc	e Between
		Under			Under	Adjusted	Revenues
	Cost of	Existing	Increase/	(Decrease)	Adjusted	and Cos	t of Service
Customer Classification	Service	Rates (1)	%	Amount	Rates (2)	%	Amount
Residential	\$3,552,375	\$1,963,846	80.89%	\$1,588,529	\$3,554,082	0.05%	\$1,707
Small Commercial	946,649	463,747	104.13%	482,902	944,538	-0.22%	(2,111)
Large Commercial	967,969	446,142	116.96%	521,827	966,661	-0.14%	(1,308)
Industrial	1,184,786	567,346	108.83%	617,440	1,184,976	0.02%	190
Eastern Bartholomew Water	52,954	30,941	71.15%	22,013	52,956	0.00%	2
Southwestern Bartholomew Water	397,856	176,037	126.01%	221,819	397,777	-0.02%	(79)
Fire Protection	877,448	754,236	16.34%	123,212	881,425	0.45%	3,977
Totals	\$7,980,037	\$4,402,295	81.27%	\$3,577,742	\$7,982,415	0.03%	\$2,378

(1) See pages 31 through 32.

(2) See pages 46 through 49.

SCHEDULE OF PRESENT AND PROPOSED RATES AND CHARGES

					Proposed	
			Present (1)	Phase I	Phase II	Phase III
Monthly Meter	red Flow Rate (pe	<u>er 1,000 gallons)</u>				
First	10,000	gallons	\$1.61			
Next	40,000	gallons	1.34			
Next	250,000	gallons	1.11			
Next	700,000	gallons	1.03			
Over	1,000,000	gallons	0.88			
First	15,000	gallons		\$2.54	\$2.97	\$3.16
Next	285,000	gallons		2.12	2.48	2.64
Over	300,000	gallons		1.47	1.72	1.83
Monthly Charg	ge (per bill)		\$0.74	\$0.00	\$0.00	\$0.00
	(
Nieter Charge	(per monun)		#0.04	¢0.00	¢4.50	¢4.05
5/8 - 3/4	Inch meter		\$2.64	\$3.90	\$4.56	\$4.85
1	inch meter		3.68	7.96	9.31	9.90
1 1/2	inch meter		4.41	14.72	17.22	18.30
2	inch meter		7.35	22.85	26.73	28.40
3	inch meter		29.41	41.83	48.94	52.00
4	inch meter		36.76	68.94	80.66	85.70
6	inch meter		55.87	136.68	159.92	169.90
8	inch meter		77.93	217.97	255.02	270.95
10	inch meter		107.33	312.82	366.00	388.85
12	inch meter		148.76	583.84	683.09	725.75
<u>Private Hydra</u>	nts (per year)		\$289.65	\$138.80	\$162.40	\$172.53

(1) Present rates and charges pursuant to IURC Order in Cause No. 39425 dated August 13, 1992.

(Continued on next page)

(Cont'd)

SCHEDULE OF PRESENT AND PROPOSED RATES AND CHARGES

			Proposed		
		Present (1)	Phase I	Phase II	Phase III
Fire Protect	ion Charges (per month)				
5/8 - 3/4	inch meter	\$1.65	\$2.13	\$2.49	\$2.65
1	inch meter	4.22	5.33	6.24	6.63
1 1/2	inch meter	9.50	10.66	12.47	13.25
2	inch meter	16.90	17.05	19.95	21.20
3	inch meter	38.02	31.98	37.42	39.75
4	inch meter	67.58	53.30	62.36	66.25
6	inch meter	152.06	106.59	124.71	132.50
8	inch meter	270.34	170.55	199.54	212.00
10	inch meter	422.40	245.16	286.84	304.75
12	inch meter	608.26	458.35	536.27	569.75
Automatic S	Sprinkler Systems (per year)				
2	inch connection	\$29.41	\$7.71	\$9.02	\$9.59
3	inch connection	72.04	22.42	26.23	27.87
4	inch connection	130.86	47.79	55.91	59.40
5	inch connection	199.96	0.00	0.00	0.00
6	inch connection	289.65	138.80	162.40	172.53
8	inch connection	516.08	295.79	346.07	367.68
10	inch connection	802.78	531.92	622.35	661.20
12	inch connection	1,156.00	859.18	1,005.24	1,068.01
Wholesale	Rates (per 1,000 gallons)				
Eastern Bai	rtholomew Water Corp.	\$1.55	\$1.96	\$2.29	\$2.44
Southweste	rn Bartholomew Water Corp.	0.84	1.53	1.79	1.90

(1) Present rates and charges pursuant to IURC Order in Cause No. 39425 dated August 13, 1992.

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

Meter Size	Monthly Usag	e	Monthly Bill			
			Current	Adjusted	Increase/De	ecrease
Metered Users					(Dollars)	(%)
5/8 inch meter	0	gallons	\$3.38	\$4.85	\$1.47	43.5%
	1,000	gallons	4.99	8.01	3.02	60.5%
	2,000	gallons	6.60	11.17	4.57	69.2%
	3,000	gallons	8.21	14.33	6.12	74.5%
	4,000	gallons	9.82	17.49	7.67	78.1%
	5,000	gallons	11.43	20.65	9.22	80.7%
	10,000	gallons	19.48	36.45	16.97	87.1%
1 inch meter	25,000	gallons	40.62	83.70	43.08	106.1%
	50,000	gallons	74.12	149.70	75.58	102.0%
	100,000	gallons	129.62	281.70	152.08	117.3%
6 inch meter	1,000,000	gallons	1,124.81	2,250.70	1,125.89	100.1%
	10,000,000	gallons	9,044.81	18,720.70	9,675.89	107.0%
	20,000,000	gallons	17,844.81	37,020.70	19,175.89	107.5%
	30,000,000	gallons	26,644.81	55,320.70	28,675.89	107.6%
Eastern Bartholo	mew Water					
4 inch meter	1,000,000	gallons	1,584.50	2,525.70	941.20	59.4%
	5,000,000	gallons	7,772.50	12,285.70	4,513.20	58.1%
	10,000,000	gallons	15,507.50	24,485.70	8,978.20	57.9%
Southwestern Ba	rtholomew Water					
6 inch meter	1,000,000	gallons	899.61	2,069.90	1,170.29	130.1%
	5,000,000	gallons	4,271.61	9,669.90	5,398.29	126.4%
	10,000,000	gallons	8,486.61	19,169.90	10,683.29	125.9%

Cause No. 45427 Attachment DLB-1 Page 60 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

CALCULATION OF PUBLIC FIRE PROTECTION CHARGE

CALCULATION OF EQUIVALENT CONNECTIONS

Meter Size	Total Annual Bills (1)	Ratio to _5/8" Meter	Total Annual Equivalent Connections
5/8"	188,685	1.0	188,685.0
1"	4,614	2.5	11,535.0
1 1/2"	2,186	5.0	10,930.0
2"	3,126	8.0	25,008.0
3"	851	15.0	12,765.0
4"	642	25.0	16,050.0
6"	249	50.0	12,450.0
8"	11	80.0	880.0
10"	12	115.0	1,380.0
Totals	200,376		279,683

(1) See page 31.

CALCULATION OF PROPOSED PUBLIC FIRE PROTECTION CHARGE PER EQUIVALENT CONNECTION

Total public fire protection revenues to be recovered (1)	\$735,469
Divided by total equivalent connections (2)	279,683
Proposed monthly charge per equivalent connection	\$2.65

(1) See page 44.

(2) See page 54.

ALLOCATION OF ANNUAL PUBLIC FIRE PROTECTION REVENUE BY METER SIZE

Meter Size	Proposed Monthly Charge Per Equivalent Connection	Equivalency Factor	Proposed Monthly Charge Per Connection	Total Number Of Annual Bills	Annual Revenues Required
E (0)				400.005	#500.045
5/8"	\$2.65	1.0	\$2.65	188,685	\$500,015
1"	2.65	2.5	6.63	4,614	30,591
1 1/2"	2.65	5.0	13.25	2,186	28,965
2"	2.65	8.0	21.20	3,126	66,271
3"	2.65	15.0	39.75	851	33,827
4"	2.65	25.0	66.25	642	42,533
6"	2.65	50.0	132.50	249	32,993
8"	2.65	80.0	212.00	11	2,332
10"	2.65	115.0	304.75	12	3,657
12"	2.65	215.0	569.75	0	
Estimated total r	evenue				741,184
Annual fire protection revenue to be recovered (page 55)					735,469
١	/ariance				\$5,715

Cause No. 45427 Attachment DLB-1 Page 64 of 66

COLUMBUS (INDIANA) MUNICIPAL WATER UTILITY

CALCULATION OF SYSTEM DEVELOPMENT CHARGE

CALCULATION OF ESTIMATED COSTS PER EDU TO SERVE NEW DEVELOPMENT

Capacity and Growth Project

Projects Necessary to Increase Capacity:	
New Water Treatment Plant (1)	\$50,600,000
Divided by maximum design capacity (GPD) (1)	20,000,000
Unit costs (\$/GPD)	2.530
Multiply by maximum-day demand for average 5/8" customer (GPD) (2)	392
Average investment per 5/8" customer	\$992
Calculated capacity fee (rounded - use)	\$990

(1) Per consulting engineers.

(2) Calculated as follows:

Average day demand for a 5/8" residential customer (GPD)	140
Times peaking factor	2.8
Maximum day demand for average 5/8" residential customer (GPD)	392

CALCULATION OF PROPOSED SYSTEM DEVELOPMENT CHARGES FOR OVERSIZED METERS

Mete	er Size	5/8 inch Rate (1)	Equivalency Factor	Proposed Charge
5/8 - 3/4	inch	\$990	1	\$990
1	inch	990	2.5	2,475
1 1/2	inch	990	5	4,950
2	inch	990	8	7,920
3	inch	990	16	15,840
4	inch	990	25	24,750
6	inch	990	50	49,500
8	inch	990	80	79,200
10	inch	990	210	207,900
12	inch	990	625	618,750

(1) See page 57.

SCHEDULE OF ESTIMATED PROJECT COSTS AND FUNDING

(Per Consulting Engineers)

Capital Projects Budget	Interim Financing (BAN)	Long-Term Projects (Bonds)	<u>)</u>
2 New Wells in South Wellfield #18 & #19 construction	\$1,448,585		
Wells and raw water design	254,000		
South wellfield modeling	135,000		
9th St Water Main Replacement Frank to Laf construction	130,000		
Jackson-8th-Gladstone Bid - construction	1,238,951		
Main replacement prioritization	152,800		
Jackson-8th-Gladstone design	63,500		
4-log removal engineering	65,000		
Water plant 2 valves	25,000		
Master plan implementation	50,000		
Booster station design	100,000		
Construction contingencies	157,200		
BAN Payoff		\$2,500,000	
Wells and Raw Water		3,000,000	
Main Projects		7,465,000	(1)
New Water Plant Design, Scoping & PILOT		2,650,000	
Water system - Boundary Review 8/24/20			
Storage tanks		5,300,000	
Transmission mains		1,400,000	(1)
Water boosters/valve stations		1,400,000	-
Sub-total Construction Costs, Contingencies			
and Engineering	3,820,036	23,715,000	
Plus allowance for legal, bond counsel, financial advisory			
general project contingencies and rounding	444,964 (2)	200,000	(2)
Totals	\$4,265,000	\$23,915,000	=
Estimated Funding			
Cash available	\$1,765,000		
Proposed BANs	2,500,000		
Plus loan repayment from sewer		\$1,715,000	
Waterworks revenue Bonds - 20 year SRF		13,075,000	
Waterworks revenue Bonds - 35 year SRF		9,125,000	-
Total Estimated Funding	\$4,265,000	\$23,915,000	_

(1) Project costs eligible for 35 year amortization thorugh SRF.

(2) Allocated pro rata to constructions costs, contingencies and engineering.