Exhibit "G"

Exhibit G, Valuation Report of Jacobus Borough Sewer Authority Sanitary System

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REPORT ON THE VALUATION OF JACOBUS BOROUGH SEWER AUTHORITY SANITARY SEWER SYSTEM

As of
December 31, 2017

Herbert, Rowland & Grubic, Inc.

HRG Project No. R007885.0425

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REPORT ON THE VALUATION OF THE JACOBUS BOROUGH SEWER AUTHORITY SANITARY SEWER SYSTEM

EXECUTIVE SUMMARY

Based on our review of the supporting documents, discussions with Jacobus Borough Sewer Authority (Authority) staff and professional advisors, the reported condition of the Authority's sewer system and an evaluation of the system revenues; we developed a range of fair value for acquisition of the system.

HRG employed the cost, market and income approaches in arriving at the fair market value as summarized below.

Cost Approach	$2,430,000
Market Approach	$2,320,000
Income Approach	$2,030,000

The Cost Approach presents the original cost less depreciation of these assets. For this valuation, however, a detailed original cost asset record was not available. Instead, a general original cost asset record was utilized from the Authority's auditor's schedule. The auditor's schedule consolidated all of the Authority's assets into 4 items. The Market Value Approach applies industry estimates on a per customer basis derived from the sale of comparable facilities and the number of customers to be acquired. The Income Approach focuses on the discounted cash flows generated by the system over a twenty year period and discounted at the acquiring utility's likely cost of capital. Income is the revenue primarily derived from rates less cost to operate the system.

We concluded that **a fair market value for the Jacobus Borough Sewer Authority's sewer system is in the range of $2.0 to $2.4 million dollars.** The value could be impacted by growth potential, capacity at the Springfield Township York County Sewer Authority's wastewater treatment plant and if the Authority and purchaser chose to enact the Section 1329 process.

INTRODUCTION

Purpose

This report has been prepared in accordance with an agreement signed September 23, 2017 between Jacobus Borough Sewer Authority (Authority) and Herbert, Rowland and Grubic, Inc. (HRG). This agreement provides for professional services with regard to the valuation of the Authority's sanitary sewer system.

Scope

In preparing our report, we reviewed the documents, reports, and analyses provided by the Authority, including audited financial statements for the years 2014, 2015, 2016 and 2017 and other supporting information shown in Appendix A. We have worked with the Authority's staff and their professional consultants and relied on reports for information on operating costs, budgets, financing costs, and operational impacts. However, the Authority could not provide detailed original sewer system quantities, dates and costs, such as sanitary sewer gravity and force main pipe, manholes, rights-of-way, etc. Therefore, this report does not comply with PUC Code Section 1329.

SYSTEM DESCRIPTION

The Jacobus Borough is located in York County Pennsylvania, about 10 miles south of the City of York. The sanitary sewer service area includes the Borough and four homes in Springfield Township.

Permits and Regulatory Compliance

The Authority's owns and operates a collection and conveyance system. According to the Authority's engineer and maintenance personnel, there were no hydraulic overloads that occurred in the Authority's system in the last five years and none are projected. The Authority is not under any violation from the Pennsylvania Department of Environmental Protection (PADEP).

Wastewater collected by the Authority's system is conveyed to the wastewater treatment plant owned and operated by Springfield Township York County Sewer Authority (STYCSA). According to the 2017 Annual Municipal Wasteload Management Report dated March 2018 and prepared by C.S. Davidson [1], there are no hydraulic or organic overloads projected in the next 5 years at the Plant.

[1] Each year the Authority's engineer, James R. Holley & Associates, Inc., prepares an annual report discussing the Authority's system. The report is provided to the STYCSA's engineer, C.S. Davidson, Inc., which uses the information to prepare the Annual Municipal Wasteload Management Report. STYCSA provides wastewater treatment to other communities in addition to Jacobus Borough and Springfield Township.

We have assumed that the Authority's NPDES permits can be transferred to the purchaser for a nominal cost.

Major Facilities

Construction of the system began in the late 1990s. Currently, the Authority's sewer system consists of approximately 76 miles of gravity pipelines varying in size from 8 to 10 inches, five (5) pump stations, and approximately 8,100 feet of force mains and associated facilities. Service is provided to 686 customers (687 equivalent dwelling units (EDUs)) located in the Borough.

Capacity Utilization

The Annual Municipal Wasteload Management Report, submitted to PADEP for 2017, reports an average flow discharged from the Authority to the wastewater plant of approximately 119,400 gallons per day (GPD). According to the Sewage Capital Contribution and Treatment Agreement dated August 16, 1995 and the First Supplement to Sewage Capital Contribution and Treatment Agreement dated July 19, 2006 between Springfield Township and the Authority, the Authority has reserved 767 EDUs of conveyance and treatment capacity.

The hydraulic and organic design capacity of the Springfield Township York County Sewer Authority's wastewater treatment plant is 0.7 MGD and 1,460 pounds BOD_5 per day, respectively. The approximate current hydraulic and organic loadings are 0.4 MGD and 660 pounds BOD_5 per day, respectively. Thus, the treatment plant has capacity for growth in the STYCSA's service area.

System Growth

Per the Jacobus Borough's Code, Section 180-26, any real estate which adjoins, abuts or is adjacent to the sewer system having an occupied building no more than 250 feet from the sewer system must connect to the sewer system. The Borough is mostly built-out, but there are 81 known future EDUs that are shown in the Authority's engineer, James R. Holley & Associates, Inc., Annual Chapter 94 Report dated February 28, 2018. Although these future developments are shown to connect to the system by 2022, these future connections have been on the 'books' for a while. In talking to the Authority's representatives, it is unlikely that new development will occur in the near future. Therefore, for this analysis, it is assumed no new connections will occur for the next 5 years.

Capital Improvements

Currently, there are no capital improvements scheduled to occur in the next 5 years. However, the pump stations are old and, according to the maintenance sub-consultant, the stations will need to be replaced in the near future.

Sewer Fund Budget, Rates and Charges

The Authority collects quarterly sewer rental charges based on a flat fee of $190 per EDU. The Authority's current rates have been in effect since 2006.

The Authority's 686 customers comprised of 654 residential connections, 20 commercial connections, 9 institutional connections and 3 industry connections. The Authority's current rates provided sewer rental income averaging approximately $523,600 between 2014 through 2017, not including income from penalties. The Authority's budgeted 2018 sewer rental income is approximately $525,500, as indicated in Schedule C.

Total revenue averaged approximately $545,700 between 2014 through 2017. The Authority's budgeted 2018 total revenue is approximately $544,600.

System expenditures averaged approximately $256,000 between 2014 through 2017, not including debt service. The Authority's budgeted 2018 total expenses, not including debt service, is approximately $266,000.

The average debt service payments between 2014 through 2017 was approximately $263,000. The debt service will continue to increase over the next several years, however. In 2018, the debt service payment including interest is $267,252. In 2023, the debt service payment will be $315,720.

VALUATION OF JACOBUS BOROUGH SEWER AUTHORITY SEWER SYSTEM

Measures of Value

The value of even the simplest object can vary widely depending upon supply, demand and other market conditions. For example, a gallon of gasoline usually remains a price competitive item. However, a competitive market may temporarily drive the price down while a stranded out-of-gas motorist may pay a premium for a gallon delivered to his vehicle. Consequently the word "value" can

possess many different meanings. As a result, a number of modifiers often precede the word "value" in an effort to establish the calculated purpose. Listed below are several common approaches to estimating the value.

Cost Approach	The Cost Approach establishes the reproduction cost less depreciation. Reproduction Cost is the cost of replacing the same facilities in kind that are being transferred in the sale. The depreciated reproduction cost is the cost of replacing the same facilities in kind minus allowance for depreciation.
Market Value	Market value is the value established in a public market by exchanges between willing sellers and willing buyers. The market value fluctuates with the degree of willingness of the buyer and seller and with the conditions of the sale. The use of the term market suggests the idea of barter. When numerous sales occur on the market, the result is to establish fairly definite market prices as the basis of exchanges. Such market prices fluctuate to some extent and at any one time may be above or below the level which infallible judgment would adopt when appraising property.
Income Approach	The Income Approach (sometimes called the Earnings Value) considers the cash flow of the system and develops the present worth of its probable future net earnings, as predicted on the basis of recent and present expenses, earnings and the business outlook.

The calculated value of a utility should rely upon specific and verifiable data. However, after data analysis, other factors, such as local market conditions or technology changes, may influence the final value for the system. Some of these can have a significant impact. Future growth or other expanded sources of income from the system are significant considerations.

Value usually varies over a range rather than a specific figure due to these less precise market adjustments. This report discusses valuation under three of the previously defined measures: Cost Approach, Market Value, and Income Approach.

Cost Approach (Book Value / Net Book Value)

The Cost Approach is a measure of the net investment in facilities made by its current owner. It does have significance in evaluating any potential purchase price, since it provides the historical value of the system's assets. Cost measures that are commonly used include Original Cost, Replacement Cost and Reproduction Cost.

Because a detailed asset schedule was not available for this analysis, the Original Cost approach was used.[2] Original Cost is the cost of a utility plant when initially dedicated to public service and is derived from work orders, construction contracts and other documents. Original Cost is the standard normally used for ratemaking purposes and forms the basis for determining the annual depreciation and return on investment that are components of a regulated utility cost of service.

In order to determine current value, depreciation is deducted from the cost. Depreciation is the loss in service value not restored by current maintenance that occurs as a result of wear and tear and action of the elements. Typically, HRG calculates the annual and accrued depreciation by assigning estimated service lives for each category of the utility plant based on experience of comparable wastewater utility systems and deducts the accumulated depreciation from the Original Cost to derive the current value. However, because the auditor's depreciation worksheet combined all categories into 4 classifications, average service lives were calculated based on knowledge and experience.

For a regulated utility, the objective of depreciation is the cost recovery of the plant cost over the useful life from those customers receiving service at the time that the facilities are in service. In other words to match the cost recovery from those customers benefiting from the facilities in service, thus avoiding subsidizing future customers at the expense of current customers.

Annual depreciation for the Authority's assets were calculated on a straight-line basis by dividing the Original Cost by the average service life to obtain the annual deduction over the useful life of the system. Accumulated depreciation was calculated by multiplying the annual depreciation for each classifications by the age.

[2] If the Authority and a willing buyer decide to pursue a selling/purchasing transaction via Section 1329 process, an Assessment of Tangible Assets pursuant to PUC Code Section 1329 will be required.

Original Cost is the standard normally used to value an investment in a physical plant for rate making purposes with the exception of valuations for municipal acquisitions as provided for in Section 1329 of the Code.

This approach assumes that all sewer system assets including land rights, rights of way, and permits will be transferred while any vehicles and equipment used in the operation of the system will be identified on a case by case basis.

Taken by itself, the depreciated cost is not a reliable predictor of the current market value of the system; but it does provide a reference based on the historical acquisition cost. Under certain circumstances, it is common for utility systems to be purchased for a price that is above the depreciated cost. This difference is referred to as "goodwill" and recognizes the Going Value of the utility.

The Original Cost is $3,420,187. After subtracting accumulated depreciation of $990,386, the Depreciated Original Cost is $2,430,000. The Original Cost for the system is detailed in Schedule A.

Market Value

By definition, Market Value varies on a specific case-by-case basis depending upon the amount a willing buyer pays to a willing seller. Subtle differences among similar assets and market conditions combine to produce a value specific to a transaction. However, observations of similar transactions can help determine what factors establish value.

For water and wastewater systems in Pennsylvania, the number of customers represents one of the controlling factors that determine value. Customer count provides a rough measure of the potential revenue as well as determining the size of the infrastructure necessary to provide service. Consequently, reviewing similar transactions and expressing their market value on a per customer basis allows for the determination of the approximate Market Value for similar systems. Consideration is given to systems being similar in the region such as Jacobus. At this writing, the Market Value for a similar sewer system on a per customer basis ranges averages approximately $3,173 per customer as noted in Schedule B.

Customer connections in the Authority's system include 732 billing units for purposes of determining Market Value. For this analysis, the number of existing customers is used (686 customers) plus 46

future connections. These 46 connections are stated in the Authority's Financial Statements Years ending December 31, 2015 and 2014 as prepared by Baker Tilly dated May 9, 2017. The customers of the 46 connections paid a tapping fee to reserve capacity into the system, but have not yet connected. Based on these parameters, Market Value for the Authority's system is approximately $2,320,000 based on existing customers.

The potential for customer growth (e.g. the potential future 81 EDUs) and the ability for STYCSA to accept additional wastewater are also factors that can influence a purchase price since they generate revenues not derived from the existing customer base.

Income Approach (Earnings Value)

There are basically two methods of the Income Approach - a cash flow method and a utility method. The cash flow method is derived from discounting future earnings derived from revenues, less expenditures, less taxes to calculate available cash flow. The utility method develops a net income (cash flow) based on annual depreciation and return. Because there was not a detail asset and depreciation list available, the cash flow method was used to value the Authority's system.

Typically, the cash method is used by municipal entities that must meet debt and other operating obligations on an annual basis from available cash flow. The utility basis is applicable for a regulated utility (investor owned utility) and allows a more equitable recovery of capital costs from customers over time since the utility plant has a long useful service life. An investor owned utility has access to equity funds from investors as a source of capital. In place of principle and interest payments required by municipal systems, investors receive a return on their investment based on the depreciated cost of the utility plant times a fair rate of return.

Earnings value of a property is the present worth of its probable future net earnings, based on expenses, earnings and the business outlook, which are discounted to a present day price level. The projection includes a provision for estimated income taxes applicable to regulated wastewater operations that would be incurred by private utility. Net income after tax has been projected over a twenty year period and was discounted to a present value. The analysis also assumes the system is transferred debt free.

There are many factors that can affect the annual cash flow, including the period in which an initial customer rate increase takes place, the cost of any immediate capital improvements, rate of inflation, the acquiring entities ability to operate the system at a reduced cost, opportunity to accept additional

wastewater, and similar external events. Ultimately, the magnitude of user rates charged by the seller or the acquiring utility will determine the system's value. The seller has the ability to raise rates prior to the sale in order to provide a pre-determined revenue level to the purchaser. Following the sale of the system to a private entity, the entity's level of revenue is ultimately established through rates approved by the Public Utility Commission (PUC).

Based on the 2017 financial statements, total annual sewer rentals were approximately $520,900. In reviewing the Authority's previous four years and current budget, the current rate does not appear adequate to fund system expenditures for the coming years (Refer to Schedule C). This is based on the fact that there will be no connections to the sewer system. Although the annual wastewater management (Chapter 94) report shows growth for the next 5 years, in talking with the Authority's representatives, it seems minor connections, if any, will connect to the system within the next 5 years. The main reason for the future required sewer rate increase is due to the principal and interest payment of the bond. As shown in Schedule C, a rate increase is estimated to occur in almost every year over the next 5 years.

The Authority's current sewer fee is $190 per quarter or $63.33 per month. The table below shows current and proposed sanitary sewer rates for areas that The York Water Company serves. The York Water Company filed a request with the Pennsylvania Public Utility Commission (PUC) to increase rates for wastewater service as of August 1, 2018. A full investigation of the request could delay the change until March 2019.

	Current Rates	Proposed starting in March 2019	Percent Increase
Asbury Pointe Subdivision customers.	$50.00 per month	$62.50 per month	25%
West York Borough Area residential customers.	$26.17 per month	$32.71 per month	25%
East Prospect Borough and Lower Windsor Area residential customers using 5,000 gallons per month.	$53.09 per month	$66.36 per month	25%

We have assumed that the acquiring utility will maintain user rates for the Authority's customers following the acquisition for three years until a new rate tariff approval is received from the Public Utility Commission. The likely magnitude and frequency of future rate increases and resulting user rates will directly impact the purchase price offer of the acquiring utility. For the purposes of this

analysis, we assumed a 10% rate increase every 3 years after initial 3 years rate freeze. The 10% increase is to parallel inflation.

Future revenue projections should take into consideration the following:

- Future Rate Increases:
  - Public Ownership – The Authority's rates have not increased since 2006. It appears that the current rate will be satisfactory in the near future as long as the growth projections shown in the Chapter 94 report occurs. (Refer to Growth Projection below.) If growth projects due not occur, it appears that rates may need to be increased within the next 2 years due to the bond payments.
  - Private Ownership – The Authority's current rate is in the ballpark of rates in the region under private utilities. It is assumed that the sale agreement will include a rate freeze for three years. For this reason, it is assumed that an initial rate increase would likely take place after three years. After this, it is assumed rates would increase every three years as new rate tariffs are approved by the PUC.
- Growth projections – Jacobus Borough is mostly built-out. As of December 31, 2017, 686 EDUs were connected to the Authority's system. According to the agreement between the Authority and Springfield Township York County Sewer Authority, the Authority has reserved a total of 767 EDUs. Therefore, an additional 81 EDUs are available to connect to the sewer system as shown in the Chapter 94 Report. However, there is a question that these additional connections will occur within that time frame. Growth will be gauged by the demand for housing. Refer to Schedule E.

Capital expenditures and certain operating costs must also be taken into account when determining the value of the system. Such costs include:

- Capital expenditures – Although no capital projects are scheduled, it is believed that the pump stations will need to be replaced within the next 5 years. The improvements are noted in Schedule D with associated costs, totaling an estimated $400,000. In addition, the annual budget includes $24,000 for capital equipment / improvement. The purchaser will likely adjust their sale amount based on consideration of the needed capital improvements.
- Normalized Operating Expenditures – Operating expenditure following system acquisition is estimated to be roughly $280,000 in 2019 for a private ownership versus $550,000 in 2019

if the Authority continues ownership of the facilities. The expenses are escalated for inflation each year.

- The analysis assumes that existing system debt is not transferred through the sale of the facilities and that the Authority uses proceeds from the sale to pay associated debt service until the Note issue can be called.

The analysis presented evaluates and quantifies these factors. Other factors may be identified during the course of negotiations. Under this approach, a value of $2.03 million is reasonable.

SUMMARY OF VALUATION OPINION

As previously stated, HRG utilized three approaches to estimate a range for the fair market value of the Jacobus Borough Sewer Authority's sanitary sewer system. The approaches incorporate expectations of future events and assumptions, and represent a good faith attempt to develop a fair market value range based on information available and informed judgement of water facilities.

The computed value for the system ranges from $2.03 million (Income Approach) to $2.43 million (Cost Approach) with $2.32 million (Market Approach) falling between these values. All valuations assume that the system is conveyed debt-free. Each of the approaches incorporates assumptions and no one approach can be assumed to be superior. For this reason, HRG believes that equal weightings should be given to each.

Each approach determines value based upon differing conditions. It is worthwhile to note that the Income Approach is more mathematical and reflects a more businesslike approach and is often the basis of a purchase price. The Market Value method of valuation is based on the number of customers and driven purely by market conditions, so it produces a value that is likely to be elevated given the condition of the system. The Cost Approach supports the underlying value of the physical assets.

Differing values can result from current market conditions and the physical condition of the system. Increases in annual operating costs or interest rates may reduce the system's value depending upon whether the increased costs are offset by an increase in the revenue stream. Discussions with the maintenance consultant suggest that reinvestment in system facilities (pump stations) will be necessary in the next five years and periodic maintenance will continue.

Although this report provides a range of values, it also provides some matters for the Authority to consider and provides guidance for the appreciate use of values. Our best estimate of probable purchase price that a willing buyer would offer a willing seller is in the range of $2.0 million and $2.4 million. Timing, market conditions, the number of willing buyers, and Jacobus Borough Sewer Authority's desire to sell the system to a public or private utility, and if the Authority and purchaser chose to enact the Section 1329 process may result in somewhat higher or lower numbers.

Jacobus Borough Sewer Authority

Valuation Appraisal

	COST APPROACH (Estimated)			
	Estimated Original Cost less Depreciation			
	Original Cost		*3,420,187*	
	Accumulated Depreciation		*990,386*	
Schedule A	*Depreciated Original Cost*	*$*	*2,429,801*	
				$ 2,430,000
	MARKET APPROACH			
	Comparison of Other Wastewater System Acquisitions			
	Average Market Value per Customer	*$*	*3,173*	
	Number of Jacobus Customers		*732*	
Schedule B	***Estimated Market Value:***	***$***	***2,320,000***	
				$ 2,320,000
	INCOME APPROACH			
	Estimated Rate Base and Return Basis			
	Market Value	*$*	*2,030,000*	
Schedule D	***Estimated Market Value:***	***$***	***2,030,000***	
				$ 2,030,000
	Average of Fair Value Approaches:			***$ 2,260,000***

Jacobus Borough Sewer Authority **SCHEDULE: A**

Estimated Original Cost Less Accumulative Depreciation [5]

Year	Asset	Service Life [1]	2018 Age	Original Cost [2]	Annual Depreciation	Age x Annual Depreciation	Accumulative Depreciation
1999	Plant and Collection System [3]	70	19	$ 3,044,001	$ 43,486	$ 826,229	$ 826,229
1999	Pump Station 2 [4]	40	19	80,000	2,000	38,000	38,000
1999	Pump Station 3 [4]	40	19	80,000	2,000	38,000	38,000
1999	Pump Station 4 [4]	40	19	80,000	2,000	38,000	38,000
1999	Pump Station 5 [4]	40	19	80,000	2,000	38,000	38,000
2013	Sanitary Sewer Improvements	20	5	18,402	920	4,601	4,601
2014	Manhole Rehabilitation	20	4	37,784	1,889	7,557	7,557
				$ 3,420,187			$ 990,386

Original Costs:	$ 3,420,187
Accumulative Depreciation:	$ 990,386
Estimated Original Cost Less Accumulative Depreciation [5]:	**$ 2,430,000**

Notes:

[1] Service life is typically assigned to individual assets (e.g. sewer pipe, pumps, electrical equipment, structures, etc.). Because the Authority, the Authority's auditor and engineer do not have a detail asset list, the service life for the collection system was estimated at 70 years, which is the average service life of sewer pipe (100 years), force mains (80 years), manholes (50 years) and pump stations (40 years). rounded to the nearest 10th year. Refer to Note 5.

[2] Information provided by Jacobus Borough Sewer Authority's auditor, Baker Tilly. Depreciation worksheet schedule dated December 31,2017. The depreciation worksheet only stated Woods Pump Station. The other pump stations shown are estimated service life and costs.

[3] Includes collection and conveyance sewer pipes and manholes.

[4] According to James R. Holly & Associates' 2017 Annual Report for PA DEP Chapter 94 report, there are a total of 5 pump stations in the Jacobus Borough Sewer Authority's system. However, the Woods Pump Station was dedicated to the Authority by a developer and; therefore, not shown above.

[5] The above calculation is a crude estimate. If the Authority and a willing buyer decide to pursue a selling/purchasing transaction via Section 1329 process, an Assessment of Tangible Assets pursuant to PUC Code Section 1329 will be required. If the Authority and a willing buyer decides to pursue a selling/purchasing transaction not by Section 1329, an Original Cost study may be required.

Jacobus Borough Sewer Authority **SCHEDULE: B**

Market Approach

Comparison of Other Wastewater System Acquisitions

Approx. Date	Buyer	Seller	County		Total Purchase Price	Number of Total Customers		Market Value
Feb-14	The York Water Company	East Prospect Borough Authority	York	$	281,000	400	$	**703**
Dec-15	PA American Water	Fairview Township [(1)]	York	$	16,800,000	3,900	$	**4,308**
May-16	PA American Water	New Cumberland Borough	Cumberland	$	23,000,000	3,100	$	**7,419**
Feb-17	The York Water Company	West York Borough	York	$	448,000	1,700	$	**264**
						Average Market Value per Customer:	$	**3,173**

Average Market Value per Customer [2]	$	3,173
Number of Jacobus Customers [3]		732
Estimated Market Value:		**$ 2,320,000**

[1] PA American Water and Fairview Township transaction was in the amount of $16,800,000 for the sewer system. Additional compensation was agreed between the two parties to reimburse the Township for replacing an interceptor under the Turnpike.

[2] The New Cumberland Borough transaction was performed under Section 1329 of the Pennsylvania Public Utility Code. The Fairview Township, East Prospect and West York Borough transactions were performed under non Section 1329. The average market value per customer has been used for this approach to calculate the market value for the JBSA. It is believed that the average per customer from the sample is more representative because it weights each system of comparable size to the JBSA.

[3] From 2017 Annual Chapter 94 Report prepared by James R. Holley & Associates dated February 28, 2017. The number of customers shown in the report, 686 customers, do not include future connections. However, additional 46 connections are included in the above calculation. These 46 connections are stated in the Jacobus Borough Sewer Authority's Financial Statements Years ending December 31, 2015 and 2014 as prepared by Baker Tilly dated May 9, 2017. The 46 connections paid the tapping fee, but have not yet connected.

Jacobus Borough Sewer Authority **SCHEDULE: C**

Budgets and Forecast

	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Budget 2018	2019 Estimated	2020 Estimated	2021 Estimated	2022 Estimated	2023 Estimated
Rate Increase						1.5%	0.0%	2.0%	2.0%	6.0%
Growth Rate						0.0%	0.0%	0.0%	0.0%	0.0%
INCOME										
304 Tapping Fee	$ 1,800.00	$ 3,600.00	$ -	$ -	$ -					
307 Misc.	425.00	39.21	2,321.00	123.50	-	-	-	-	-	-
311 Main St Credit	5,723.35	5,589.40	4,388.09	6,415.77	5,000.00	*5,075*	*5,075*	*5,177*	*5,280*	*5,597*
321 Sewer Rentals	521,347.57	523,954.89	528,156.97	520,931.21	525,540.00	*533,423*	*533,423*	*544,092*	*554,973*	*588,272*
323 Finance Charges	1,683.69	1,433.87	1,383.41	2,230.17	2,000.00	*2,030*	*2,030*	*2,071*	*2,112*	*2,239*
324 Late Penalty Fees	8,123.19	7,954.72	7,961.29	8,464.78	7,000.00	*7,105*	*7,105*	*7,247*	*7,392*	*7,836*
329 Bank Fees	126.02	88.00	117.00	-	-	-	-	-	-	-
344 Revenue Account Interest	229.79	249.41	828.19	3,239.33	3,100.00	*3,147*	*3,147*	*3,209*	*3,274*	*3,470*
353 Water Shutoff Costs	470.59	2,006.74	1,788.26	3,001.89	2,000.00	*2,030*	*2,030*	*2,071*	*2,112*	*2,239*
354 Certified Letter Costs	540.00	155.00	20.00	-	-	-	-	-	-	-
355 Insufficient Funds	1,900.00	3,843.66	4,026.00	2,247.96	-	-	-	-	-	-
357 CD Interest	4,581.40	4,422.41	5,643.28	8,421.36	5,000.00	*5,075*	*5,075*	*5,177*	*5,280*	*5,597*
358 Checking Acct. Interest	4.31	6.02	19.83	50.13	-	-	-	-	-	-
359 Electric Refund	1,080.62	-	-	-	-	-	-	-	-	-
Total Income	$ 548,035.53	$ 553,343.33	$ 556,653.32	$ 555,126.10	$ 544,640	$ 557,885	$ 557,885	$ 569,042	$ 580,423	$ 615,249
EXPENSES										
401 Telephone	$ 2,014.24	$ 2,049.70	$ 2,109.94	$ 2,120.93	$ 2,200.00	*2,233*	*2,266*	*2,300*	*2,335*	*2,370*
402 Electric	8,779.91	7,312.12	6,550.75	7,559.28	10,000.00	*10,150*	*10,302*	*10,457*	*10,614*	*10,773*
403 Secretary Compensation	599.00	599.00	599.00	599.00	599.00	*599*	*599*	*599*	*599*	*599*
404 Office Supplies	116.41	141.78	122.12	67.80	250.00	*254*	*258*	*261*	*265*	*269*
405 Treasurer Compensation	599.00	599.00	599.00	599.00	599.00	*599*	*599*	*599*	*599*	*599*
406 Postage (Billing)	1,188.98	1,214.95	1,202.62	580.44	-	-	-	-	-	-
408 Engineer	13,436.97	9,963.20	4,368.50	14,475.78	15,000.00	*15,225*	*15,453*	*15,685*	*15,920*	*16,159*
409 Legal	4,566.45	3,614.79	1,270.00	6,448.10	10,000.00	*10,150*	*10,302*	*10,457*	*10,614*	*10,773*
410 Maintenance Contract	33,820.80	35,061.21	35,173.68	36,048.68	35,174.00	*35,702*	*36,237*	*36,781*	*37,332*	*37,892*
411 Misc.	843.95	307.00	2,386.00	644.76	2,000.00	*2,030*	*2,060*	*2,091*	*2,123*	*2,155*
412 Bond	1,179.00	607.00	1,823.00	1,215.00	1,200.00	*1,218*	*1,236*	*1,255*	*1,274*	*1,293*
413 EDU Fees to STYCSA	121,467.60	121,643.64	121,643.64	121,687.65	121,820.00	*123,647*	*125,502*	*127,385*	*129,295*	*131,235*
417 Repairs	18,819.60	14,568.92	23,099.53	40,529.60	15,712.00	*24,000*	*24,720*	*25,462*	*26,225*	*27,012*
420 Insurance	552.00	575.00	714.00	728.00	1,000.00	*1,015*	*1,030*	*1,046*	*1,061*	*1,077*
WWT Exp. Overage	1,433.14	16,359.62	25,519.22	-	30,000.00	*30,450*	*30,907*	*31,370*	*31,841*	*32,319*
422 Billing Supplies	498.20	392.44	592.14	125.50	-	*400*	*406*	*412*	*418*	*425*
Software/Cmptr Repairs	24.14	261.39	1,052.50	-	500.00	*508*	*515*	*523*	*531*	*539*
422.1 York Water Co Billing	-	-	-	1,485.00	6,000.00	*6,090*	*6,181*	*6,274*	*6,368*	*6,464*
425 Audit	5,500.00	5,600.00	-	10,600.00	6,000.00	*6,090*	*6,181*	*6,274*	*6,368*	*6,464*

	Actual 2014	Actual 2015	Actual 2016	Actual 2017	Budget 2018	2019 Estimated	2020 Estimated	2021 Estimated	2022 Estimated	2023 Estimated
434 Deposit/Insufficient Fund	1,810.00	3,881.62	4,801.00	939.77	-	-	-	-	-	-
435 Chairman Compensation	599.00	599.00	599.00	599.00	599.00	*599*	*599*	*599*	*599*	*599*
481 Loan Interest	106,824.43	95,567.28	76,812.96	71,619.02	70,252.00	*65,130*	*59,748*	*54,236*	*48,490*	*71,720*
482 Loan Principal	162,000.00	173,000.00	178,000.00	188,000.00	197,000.00	*207,000*	*212,000*	*221,000*	*235,000*	*244,000*
485 Bank Fee	72.00	104.00	286.00	65.00	-	-	-	-	-	-
486 Line Locator	3,851.94	4,125.95	3,865.34	3,939.54	4,500.00	*4,500*	*4,500*	*4,500*	*4,500*	*4,500*
489 Member Compensation	720.00	720.00	720.00	720.00	720.00	*720*	*720*	*720*	*720*	*720*
492 Water Cutoff Costs	1,545.00	2,460.00	1,935.00	2,372.25	2,000.00	*2,000*	*2,000*	*2,000*	*2,000*	*2,000*
495 Deposit Error	-	-	90.00	(41.35)	-	-	-	-	-	-
496 Lining	37,784.21	-	-	2,645.89	-	-	-	-	-	-
Loan Refinancing	-	12,051.77	3,566.50	-	-					
Additional payment	-	-	14,000.00	-	-					
Total Expenses	$ 530,645.97	$ 513,380.38	$ 513,501.44	$ 516,373.64	$ 533,125	$ 550,308	$ 554,324	$ 562,286	$ 575,092	$ 611,954
CAPITAL PROJECTS										
No Capital Improvement Plan										
Total Capital Projects										
NET INCOME	$ 17,389.56	$ 39,962.95	$ 43,151.88	$ 38,752.46	$ 11,515.00	$ 7,576	$ 3,561	$ 6,757	$ 5,331	$ 3,294

Jacobus Borough Sewer Authority **SCHEDULE: D**

Income Approach

Income Present Value Analysis

Year	Revenues	Expenses: Fixed Expenses [1]	Expenses: Expense Varies with Flow [2]	Expenses: Capital Projects [3]	Expenses: Renewals & Replacements	Income Before Taxes	less State & Federal Taxes [4]	Cash Flow	Assumed Growth Rate [5]	Assumed Rate Increase
2019	$ 549,640	$ 97,503	$ 172,016	$ -	$ -	$ 280,122	$ 114,570	$ 165,552	0.00%	
2020	549,640	99,992	176,316	-	-	$ 273,332	$ 111,793	161,539	0.00%	
2021	549,640	102,546	180,724	-	-	$ 266,370	$ 108,945	157,425	0.00%	
2022	604,604	105,168	185,242	-	-	$ 314,194	$ 128,505	185,689	0.00%	10.0%
2023	604,604	107,858	189,873	80,000	24,500	$ 202,373	$ 82,770	119,602	0.00%	
2024	604,604	110,555	194,620	80,000	24,500	$ 194,929	$ 79,726	115,203	0.00%	
2025	665,064	113,319	199,485	80,000	24,500	$ 247,760	$ 101,334	146,426	0.00%	10.0%
2026	665,064	116,152	204,472	80,000	24,500	$ 239,940	$ 98,136	141,805	0.00%	
2027	665,064	119,056	209,584	80,000	24,500	$ 231,925	$ 94,857	137,067	0.00%	
2028	731,571	122,032	214,824	-	24,500	$ 370,215	$ 151,418	218,797	0.00%	10.0%
2029	731,571	125,083	220,194	-	24,500	$ 361,794	$ 147,974	213,820	0.00%	
2030	731,571	128,210	225,699	-	24,500	$ 353,162	$ 144,443	208,719	0.00%	
2031	804,728	131,415	231,342	-	24,500	$ 417,471	$ 170,746	246,725	0.00%	10.0%
2032	804,728	134,700	237,125	-	24,500	$ 408,402	$ 167,037	241,366	0.00%	
2033	804,728	138,068	243,053	-	24,500	$ 399,107	$ 163,235	235,872	0.00%	
2034	885,201	141,520	249,130	-	24,500	$ 470,051	$ 192,251	277,800	0.00%	10.0%
2035	885,201	145,058	255,358	-	24,500	$ 460,285	$ 188,257	272,028	0.00%	
2036	885,201	148,684	261,742	-	24,500	$ 450,275	$ 184,162	266,112	0.00%	
2037	973,721	152,401	268,285	-	24,500	$ 528,534	$ 216,170	312,364	0.00%	10.0%
2038	973,721	156,211	274,993	-	24,500	$ 518,017	$ 211,869	306,148	0.00%	

Present Value of Cash Flows:

	Rate	Resulting Market Value
Rate of Inflation:	2.500%	
Discount Factor	6.750%	$ 2,030,000
Total Estimated Value:		**$ 2,030,000**

Assumptions

[1] Assumes Purchaser's O&M expenses less variable expenses are 10% less than Owner's.

[2] Includes payment to Springfield Township York County Sewer Authority for wastewater treatment and electric at pump stations.

[3] Estimated costs to replace/rehabilitate the 5 pump stations.

[4] Assumes state (9%) and federal (35%) taxes at a consolidated rate of 40.9%. Taxes are applied to the income less the annual depreciation and debt service interest.

[5] Assume no new connections between 2019 and 2023. Refer to the report for discussion.

Jacobus Borough Sewer Authority

SCHEDULE: E

Number of Existing and Future Customers [1]

As of 2017: [1]

Industrial	3
Public	9
Commercial	20
Residential	654
Total Customers	686

Projected Connections

	2017	2018	2019	2020	2021	2022	Total
Connections to used for this analysis: [2]	0	0	0	0	0	0	0
Connections shown in the 2017 Chapter 94 Report:	0	5	29	26	14	7	81

Year	# of Customers	Est. Growth	% Growth	
Beginning	686			
2018	686	0	0.0%	Per Chapter 94 Report
2019	686	0	0.0%	Per Chapter 94 Report
2020	686	0	0.0%	Per Chapter 94 Report
2021	686	0	0.0%	Per Chapter 94 Report
2022	686	0	0.0%	Per Chapter 94 Report
2023	686	0	0.0%	Estimated (Refer to Note 3)
2024	686	0	0.0%	Estimated (Refer to Note 3)
2025	686	0	0.0%	Estimated (Refer to Note 3)
2026	686	0	0.0%	Estimated (Refer to Note 3)
2027	686	0	0.0%	Estimated (Refer to Note 3)
2028	686	0	0.0%	Estimated (Refer to Note 3)
2029	686	0	0.0%	Estimated (Refer to Note 3)
2030	686	0	0.0%	Estimated (Refer to Note 3)
2031	686	0	0.0%	Estimated (Refer to Note 3)
2032	686	0	0.0%	Estimated (Refer to Note 3)
2033	686	0	0.0%	Estimated (Refer to Note 3)
2034	686	0	0.0%	Estimated (Refer to Note 3)
2035	686	0	0.0%	Estimated (Refer to Note 3)
2036	686	0	0.0%	Estimated (Refer to Note 3)
2037	686	0	0.0%	Estimated (Refer to Note 3)
2038	686	0	0.0%	Estimated (Refer to Note 3)
		0		

Notes:

[1] From the 2017 Annual Chapter 94 Report prepared by James R. Holley & Associates dated February 28, 2017.

[2] Although the 2017 Chapter 94 Report shows future connections, the Authority believes that it is unlikely that new connections will occur within the next 5 years. There may be two sets of 8 units that could be constructed, but these units have been on the 'books' for a while. Therefore, for this analysis (0) zero connections are used.

[3] According to the agreement between the Authority and Springfield Township York County Sewer Authority the Authority has reserved a total of 767 EDUs. Therefore, an additional 81 EDUs are available to connect to the sewer system.

Appendix A

List of Documents Received by Jacobus Borough Sewer Authority

1. Financial Statements for the Years ending 2013 and 2014 prepared by Seligman, Friedman & Company.
2. Financial Statements for the Years ending 2014 and 2015 prepared by Baker Tilly International.
3. Custom Summary Report o Expenses and Income for 2014, 2015 and 2016.
4. Jacobus Borough Sewer Authority Bond Series of 2004 amortization schedule renegotiated date of September 15, 2015.
5. Customer Summary Report for 2014, 2015 and 2016.
6. Jacobus Borough Sewer Authority Budget for Fiscal Year 2017.
7. Depreciation Worksheet prepared by Baker Tilly International dated December 31, 2017.
8. Sewage Capital Contribution and Treatment Agreement dated August 16, 1995 between Jacobus Borough Sewer Authority and Springfield Township.
9. First Supplement to Sewage Capital Contribution and Treatment Agreement dated July 19, 2006 between Jacobus Borough Sewer Authority and Springfield Township, York County, Sewer Authority.
10. Jacobus Borough Sewer Authority 2016 Annual Report for PA DEP Chapter 94 Report dated February 17, 2017 prepared by James R. Holley & Associates, Inc.
11. Jacobus Borough Sewer Authority 2017 Annual Report for PA DEP Chapter 94 Report dated February 28, 2018 prepared by James R. Holley & Associates, Inc.
12. Springfield Township, York County, Sewer Authority Wastewater Treatment Plan, 2017 Annual Municipal Wasteload Management (Chapter 94) Report dated March 2018 prepared by C.S. Davidson, Inc.
13. 2016 Annual Report of Municipal Authorities Filing Information.
14. Capital Charges Study Pursuant to Act 203; dated November 1998 prepared by James R. Holley & Associates, Inc.
15. Customer list for the first quarter dated January 7, 2017.
16. Jacobus Borough Ordinances, Chapter 180, Articles I, II and III.

Documents that were not Available Include

1. List of tangible assets and depreciation schedule.
2. Deeds, easements and right-of-ways.

Other Sources of Information

1. Telephone discussions and email correspondence between David A. Jones, II, Esq. of Stock and Leader and Kevin Fox, PE of Herbert, Rowland and Grubic, Inc.

2. Telephone discussions and email correspondence between David Lipinski, PE of James R. Holley & Associates, Inc. and Kevin Fox, PE of Herbert, Rowland and Grubic, Inc.
3. Telephone discussions between Mr. Gene Snyder (Authority's Financial Recording Secretary) and Kevin Fox, PE of Herbert, Rowland and Grubic, Inc.
4. Telephone discussions between George Christine (maintenance subcontractor) and Kevin Fox, PE of Herbert, Rowland and Grubic, Inc.