# BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

# FAIR MARKET VALUE APPRAISAL

AT

MARCH 31, 2020

Prepared by:

GANNETT FLEMING

VALUATION AND RATE CONSULTANTS, LLC



Valley Forge, Pennsylvania



#### Excellence Delivered As Promised

May 31, 2020

#### VIA EMAIL

Mr. Michael Leonard, Manager Royersford Borough 300 Main Street Royersford, PA 19468

**Re:** Fair Market Value Appraisal

Dear Mr. Leonard:

In accordance with your request, we have prepared a fair market value appraisal of the Borough of Royersford's wastewater system assets ("Wastewater System") as of March 31, 2020.

Fair market value is defined as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."

Based on our analysis, as described in the attached appraisal report, the estimate of the fair market value of the Wastewater System as of March 31, 2020 is \$13,219,000 (rounded).

Our appraisal was developed consistent with the Uniform Standards of Professional Appraisal Practices. Our fair market value appraisal of the Wastewater System was based on the Cost, Market and Income Approaches to valuation. We used seven methods under the Cost, Market and Income Approaches to valuation: Original Cost Method, Replacement Cost Method, Capitalization of Earnings Method, Market Multiple Discounted Cash Flow Method, Capitalization Discounted Cash Flow Method, Market Multiples Method, and the Selected Transactions Method.

The attached narrative appraisal presents our findings and conclusions regarding the fair market value of the Wastewater System's assets of March 31, 2020. The report describes the valuation methodologies employed and the Exhibits that present the valuation results.

#### **Gannett Fleming**

Mr. Michael Leonard Royersford, PA 19468

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May 31, 2020

The results of the analyses and calculations completed for each applicable approach are detailed throughout the report and the Exhibits and are summarized as follows:

Valuation <u>Approach</u>	Indicated <u>Value</u>
Cost Approach	\$13,254,220
Income Approach	13,932,841
Market Approach	12,471,156

We thank Royersford for this opportunity to provide valuation services in connection with the fair market value appraisal of the Wastewater System's assets.

Respectfully Submitted,

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

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HAROLD WALKER, III Manager, Financial Studies

HW:amp

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#### INTRODUCTION

Introduction and Summary. The following narrative report presents our findings and conclusions regarding the fair market value of the wastewater system assets of the Borough of Royersford as of March 31, 2020. The report describes the valuation methodologies employed and the Exhibits that present the valuation results. Based upon the analyses, we believe the fair market value of the wastewater system assets of the Borough of Royersford's wastewater system assets is \$13.2 million. This conclusion is based upon the values suggested by the Cost, Income and Market approaches. During our analysis we found indications of value that ranged from \$12.5 million to \$13.9 million. However, most of the appropriate indicated values approximated \$13.2 million.

<u>Description of the Assignment</u>. Gannett Fleming Valuation and Rate Consultants, LLC was retained by the Borough of Royersford ("Borough") to estimate the fair market value of the Borough of Royersford's wastewater system assets ("Wastewater System") as of March 31, 2020.

Standard and Premise of Value. The fair market value appraisal of the Wastewater System complies with the Uniform Standards of Professional Appraisal Practices, employing the cost, market and income approaches. Fair market value is defined as "the price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."

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<sup>1</sup> The International Glossary of Business Valuation Standards

As stated, the standard of value for this engagement is fair market value. The premise of value is going concern. The going concern premise of business value assumes that the business will continue running normally using all of its assets to produce income and will continue operating beyond the valuation date.

We valued the Wastewater System's assets as a group under the premise that the assets collectively comprise an ongoing operating business enterprise. Additionally, in accordance with 66 Pa. C.S. Section 1329 the original source of funding for any part of the Wastewater System's assets was not relevant to the determination of the value of said assets.

Intended Use of the Valuation. The intended use of the valuation is to comply with 66 Pa. C.S. Section 1329, Valuation of Acquired Water and Sewer System and conduct a fair market value appraisal of the Wastewater System in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market and income approaches.

<u>Client and Users</u>. The client is the Borough of Royersford. The intended users of the valuation are the Borough of Royersford, Pennsylvania American Water Company, Inc. and the Pennsylvania Public Utility Commission.

<u>Extraordinary Assumptions</u>. There were no extraordinary assumptions required for this appraisal.

<u>Hypothetical Conditions</u>. There were no hypothetical conditions assumed for this appraisal.

<u>Limiting Conditions</u>. We accepted all information and data provided by the Borough of Royersford as it pertains to this assignment "as is" after a limited review. That is, we neither audited nor verified any data, engineering assessment, financial record or operating data provided for this assignment. We assumed all title to all assets included in the appraisal is good and

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marketable, no hidden defects in the property or soil and no hazardous conditions or materials exist which could affect the assets.

Site Inspection. We viewed or observed the Wastewater System's facilities on May 21, 2020. We also relied on engineering assessment of the Wastewater System's facilities report, "Royersford Borough Sewerage Facilities Engineering Assessment and Original Cost" and related files prepared by Pennoni Associates Inc., to confirm the condition of the Wastewater System's property and equipment.

Sources of Information. The following sources of information were reviewed during the assignment:

Engineer's assessment report "Royersford Borough Sewerage Facilities Engineering

Assessment and Original Cost" and related files prepared by Pennoni Associates Inc.;

Borough provided electronic files (PDF and Excel);

Wastewater System's Customer data;

Wastewater System's Fee Schedule;

Borough of Royersford's Chapter 94 Reports

Borough of Royersford's bulk service agreements;

Asset Purchase Agreement;

Borough of Royersford's Audited Financials (2015-2018);

Borough of Royersford's Budgets for Wastewater System (2019-2020);

Blue Chip Financial Forecasts;

US Census Bureau, various data files;

Value Line Investment Survey; and

S&P Capital IQ.

Description of Borough of Royersford. The Borough is located along the Schuylkill River between Upper Providence Township and Limerick Township in western Montgomery County, Pennsylvania. The Borough is in the middle of a major growth area, which was spurred by the completion of the Route 422 Expressway in the 1980s. Montgomery County is the most populous county in the Delaware Valley and one of the most affluent in Pennsylvania. The County is a regional employment center with a diverse and well-balanced economic base.<sup>2</sup>

The Borough is the 52nd largest land mass of Montgomery County's 62 municipalities and was the 43rd most populous with 4,771 people (2015) and 2,345 housing units (2015). The Borough consists of 0.8 square miles and lies approximately 33 miles northwest of Philadelphia, Pennsylvania. According to U.S. Census figures, The Borough's population grew 11.9% from 2000 to 2010, while population in Pennsylvania grew 3.4% and 6.6% in Montgomery County.

<u>Description of the Wastewater System</u>. The Borough owns and operates the Wastewater System which consists of approximately 69,990 linear feet of gravity sewer collection mains, two pump stations, about 4,180 linear feet of force mains, the Royersford Wastewater Treatment Plant ("WWTP"), associated infrastructure and appurtenances, and related land and land rights.

The Wastewater System's WWTP was initially constructed in 1935 with major improvements in the 1980s and over the last decade. The WWTP is hydraulically rated for 1.0 million gallons per day ("MGD"), with a loading rating of 0.7 MGD. The 2018 Chapter 94 Report year average influent flow was 0.430 MGD. The WWTP consists of an office/control building, primary and secondary settling tanks, trickling filters, primary recirculation pumps, lab building, secondary recirculation pump station, raw sewage pumps, influent grinder, influent screen unit

<sup>2</sup> Borough of Royersford, Montgomery County, PA, Comprehensive Plan, January 2017.

(upper grinder station), poly aluminum chloride system, flow meter, anaerobic digester, sludge holding tanks, disinfection system (liquid sodium hypochlorite), de-chlorination system, emergency generator, and storage building. The liquid biosolids are hauled by an outside contractor to the Pottstown Sewage Treatment Plant for disposal. The overall assessment of the condition of the WWTP is good.

The Wastewater System's two pump stations included the 10th Avenue pump station and the Green Street pump station. The 10th Avenue pump station consists of a wet well, grinder, masonry building, generator, and two pumps. The Green Street pump station consists of a wet well, dry well, two pumps and a generator. The pump stations' building, pumps and electrical systems components are in good condition.

The Wastewater System's 69,990 linear feet of gravity sewer collection main consists of 8-inch, 10-inch, 12-inch and 15-inch clay and PVC pipe. There is approximately 205 linear feet of 15-inch cast iron pipe. There are 259 manholes in the system. The majority of the gravity mains were installed in the mid-1930s. The Wastewater System lined approximately 7,600 linear feet of 8-inch and 10-inch gravity mains, and 1,638 feet of 15-inch gravity mains between 2012 and 2016. The Wastewater System's 4,180 linear feet of force mains consist 680 linear feet of 6-inch cast iron pipe (Green Street pump station) and 3,500 linear feet of 8-Inch cast iron pipe (10th Avenue pump station).

The Wastewater System's has about 27,000 linear feet of laterals which service 1,596 Borough customers. The WWTP also provides wholesale service to a small portion of Limerick Township and Upper Providence Township.

The Borough utilizes one enterprise fund, the Sewer Fund, to account for the Wastewater System's operations. Exhibit 1 summarizes selected financial information from the Borough's

annual reports and annual budget statements. For the year ended December 31, 2018, (Exhibit 1) the Wastewater System had operating revenues of \$0.779 million. At year end December 31, 2018 the Wastewater System was capitalized with \$4.702 million of capital: including \$1.920 million of fund equity and the Borough's long-term debt attributable to the Wastewater System was \$2.783 million. At the same point in time, the Wastewater System had total assets of \$4.813 million, including \$4.546 total net utility plant.

The Wastewater System is exempt from Pennsylvania Public Utility Commission ("PUC") regulation as a municipal utility. The Wastewater System's rate requirements are established by the needed funds to run the system. Most municipalities, including Wastewater System, use a Government Accounting Standards Board ("GASB") process of accounting or the PA Department of Community and Economic Development ("DCED") versus Financial Accounting Standards Board ("FASB") method of accounting used by investor owned utilities ("IOU"). Municipalities are not typically concerned with the return on and the return of their investments of their utility systems since they deem they are providing a public service to their taxpayers. Municipalities typically expense (i.e., maintenance expense) minor collection, renewals replacement, and customer collection services capital expenditures and they do not typically fully account for the replacement of all capital assets which are all typically capitalized (i.e., construction of capital asset, construction expenditure, etc.) and "booked" at original cost by IOUs. For these reasons, we do not believe Wastewater System's financial statements should be fully relied upon without recognizing their limitations.

As shown on Exhibit 2, the Wastewater System provides service to 1,596 retail customers and wholesale service to two neighboring townships for about 120 customers. The Wastewater System had average daily flows of 0.430 MGD (2018) and serviced approximately 1,716

Equivalent Dwelling Units ("EDU"). The Wastewater System is not dependent on industrial customers.

<u>Demographics and Growth for the Wastewater System.</u> As shown on Exhibit 3, Table 3.1, according to U.S. Census figures, the U.S. population grew 9.7% from 2000 to 2010, and the population in Pennsylvania grew 3.4%. During this same period, Montgomery County's population grew 6.6% and the Borough's population grew 11.9% (Exhibit 3, Table 3.2). The Borough's population growth was ranked 411 of the 2,572 municipalities in Pennsylvania.

The Census Bureau and planning agencies provide population projections for future time periods. Population projections are a primary indicator of expected future growth, and they help determine predictable demand for utility services, housing, roads, business services and facilities. The Delaware Valley Regional Planning Commission ("DVRPC") publishes population projections and employment projections for the Borough and the nine Delaware Valley counties ("Nine DVRPC Counties"). The DVRPC counties include Bucks County, Chester County, Delaware County, Montgomery County and Philadelphia County, in Pennsylvania, and Burlington County, Camden County, Gloucester County, and Mercer County, in New Jersey.

As shown on Page 2 of Exhibit 3, Table 3.3, the Borough's population growth is projected to be about 115% the growth rate projected for the Nine DVRPC Counties during each five-year period from 2015 through 2045. The Borough's project population growth places them in the lower 43 percent or 43rd percentile of the 369 municipalities analyzed by DVRPC. Page 3 of Exhibit 3, Table 3.4 shows the Borough's employment growth is projected to be about 76% the growth rate projected growth rate projected for the Nine DVRPC Counties during each five-year period from 2015 through 2045.

Currently, there are approximately 5,154 people (Exhibit 2) in the Waste System's service

area. There are 2,497 housing units in the Waste System's service area, and the ratio of people in households to households is 2.06 persons per household. The Wastewater System's service area density is 3.2 people per customer based on an estimated population of 5,514 and 1,596 customers. The Wastewater System's service area density is lower than the 3.5 per customer density of water and wastewater systems (see Table 2 in this report) indicating lower market penetration.

#### HISTORY AND NATURE OF THE BUSINESS

<u>Economic Outlook</u>. The valuation date (March 31, 2020) is the specific date at which the value of the Wastewater System is based. Generally, only the circumstances existing at the valuation date and events occurring up to the valuation date are considered. Events which could affect the value may occur subsequent to the valuation date.

A coronavirus is a kind of common virus that causes an infection in sinuses, or upper throat. An outbreak of a new strain of coronavirus was first reported in Wuhan, China in late 2019 and quickly spread around the world. The World Health Organization ("WHO") declared the spread of the infection a pandemic. The WHO named the virus SARS-CoV-2, and the disease Covid-19.

We do not believe the appraised value of the long-lived Wastewater System assets will be materially impacted by the Covid-19 or its related short-term events. In all likelihood, both the mandatory and voluntary testing, preventative measures and social distancing should impact the spread of the disease and constrain its impact to months while the Wastewater System assets will provide service for decades.

Moreover, the Wastewater System's customer base is not heavily dependent on customers from sectors of the economy providing tourism and travel, employment services, mining/oil and

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gas (energy), and leisure and hospitality which are likely to be the most impacted by COVID-19's related short-term events. Therefore, even on a short-term basis, the Wastewater System's revenues and cash flows should not be materially impacted on a relative basis.

Nevertheless, we have included subsequent information in Appendix B (Known Impact of COVID-19) regarding Covid-19's known impact for informational purposes only and does not affect the determination of value as of the specified valuation date of March 31, 2020.

In the valuation of any company, the general economic outlook as of the valuation date is important since it influences how investors perceive alternative investment opportunities at that point in time. As part of our analysis, we considered the forecasts for the U.S. economy that prevailed as of March 31, 2020. In particular, we focused on the forecasts and economic commentary presented in <u>Blue Chip Financial Forecasts</u> in the March 1, 2020 edition. Some of these economic forecasts are presented in Table 1.

<u>Ec</u>	conomic Indicators		
	Latest Qtr	Consensus Forecasts	
	1Q 2020	2Q 2020	3Q 2020
Key Assumptions			
Real GDP	-4.8	-27.8	7.4
GDP Price Index	1.3	0.1	1.1
Consumer Price Index	1.2	-2.4	1.1
Interest Rates			
3-mo. Treasury Bills	1.13	0.1	0.1
10 Year Notes	1.38	0.7	0.8
30 Year Notes	1.88	1.3	1.4
Aaa Corporate Bond Yield	3.00	2.6	2.7
Baa Corporate Bond Yield	3.76	4.3	4.3
State & Local Bonds	3.07	2.6	2.6
		3.3	3.3

Table 1

<u>Industry Review</u>. A review of the industry in which the company operates is important in determining value. The trends and stability of the specific economic environment affecting operations need to be reviewed to gain further insight regarding the prospects and risks associated with the industry and each company.

The wastewater utility industry has a Standard Industrial Classification ("SIC") code of 4952 (Sewerage Systems), has sewer utilities, and includes establishments primarily engaged in the collection and disposal of wastes conducted through a sewer system, including such treatment processes as may be provided. There are currently 2,195 U.S. Businesses with a SIC code of 4952.

The wastewater utility industry is a fragmented industry, although not as fragmented as the

water supply industry. According to the U.S. Environmental Protection Agency's ("EPA") most recent survey of publicly-owned wastewater treatment facilities in 2012, there are approximately 15,000 such facilities in the nation, serving approximately 76% of the U.S. population. Eighty percent of domestic wastewater systems are government owned rather than IOUs. Currently, there are no wastewater utility companies that have actively traded stock.

A comparative industry to the wastewater utility industry is the water supply industry. The water supply industry has a SIC code of 4941 (Water Supply), has water utilities, and includes establishments primarily engaged in distributing water for sale for residential, commercial, and industrial uses. Government controlled establishments such as municipal service districts and public utilities dominate the industry. Private companies or IOUs are active in the construction and improvement of water supply facilities and infrastructure. There are currently 10,942 U.S. Businesses with a SIC code of 4941.

The water supply industry is the most fragmented of the major utility industries with more than 53,000 community water systems in the U.S. (82% of which serve less than 3,300 customers). The nation's water systems range in size from large municipally owned systems, such as the New York City water system that serves approximately 9 million people, to small systems, where a few customers share a common well.

An estimated 14% of all water supplies are managed or owned by IOUs. IOUs consist of companies with common stock that is either actively traded or inactively traded, as well as companies that are closely held, or not publicly traded. Currently (March 31, 2020), there are only about nine investor owned water utility companies with publicly traded stock in the U.S.

The wastewater utility industry and water utility industry's increased compliance with state and federal water purity levels and large infrastructure replacements are driving consolidation of the wastewater utility and water utility industries. Because many wastewater utility and water utility operations do not have the means to finance the significant capital expenditures needed to comply with these requirements, many have been selling their operations to larger, financially stronger operations.

The larger IOUs have been following an aggressive acquisition program to expand their operations by acquiring smaller wastewater and water systems. Generally, they enter a new market by acquiring one or several wastewater or water utilities. After their initial entry into a new market, the larger investor-owned water utility companies continually seek to expand their market share and services through the acquisition of wastewater and water utility businesses and operations that can be integrated with their existing operations. Such acquisitions may allow a company to expand market share and increase asset utilization by eliminating duplicate management, administrative, and operational functions.

Acquisitions of small, independent utilities can often add earning assets without necessarily incurring the costs associated with the SDWA if such acquisitions are contiguous to the potential purchaser.

In summary, the result of increased capital spending, to meet the SDWA requirements<sup>3</sup> and to replace the aging infrastructure of many systems, has moved the wastewater and water industries toward consolidation. Moreover, Federal and State regulations and controls concerning water quality are still in the process of being developed and it is not possible to predict

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<sup>3</sup> The SDWA, or Safe Drinking Water Act, is the principal federal law in the United States intended to ensure safe drinking water for the public. Pursuant to the act, the EPA is required to set standards for drinking water quality and oversee all states, localities, and water suppliers who implement these standards. The CWA, or Clean Water Act, is the primary federal law in the United States governing water pollution. The CWA's objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

the scope or the enforceability of regulations or standards which may be established in the future, or the cost and effect of existing and potential regulations and legislation upon the sewer and water systems. However, as a small to medium sized sewer system, the Wastewater System faces the cost of compliance with significantly limited financial resources when compared to larger IOU water utilities.

#### QUANTITATIVE AND QUALITATIVE ANALYSIS

Comparison Review. The comparison review considers the financial and operating statistics for the Wastewater System, and a group of companies ("Comparable Group") that operate in the same basic or similar industry as the Wastewater System. Since no marketplace exists for the common stock of the Wastewater System, an alternative to estimate the value of the Wastewater System is to analyze the price investors are willing to pay for the publicly traded common stock of companies that are similar to the Wastewater System. We list the Comparable Group chosen for study in Table 2.

The companies in the Comparable Group were selected based upon: (1) the availability of financial information; (2) inclusion in the S&P Capital IQ database; (3) a March 31, 2020 market value of common stock, the product of multiplying the closing stock price by the number of common shares outstanding, greater than \$200.0 million; (4) a March 31, 2020 total enterprise, the sum of market value, preferred stock and total debt, greater than \$450.0 million; (5) were not the subject of a known acquisition at March 31, 2020; (6) with a Standard Industrial Classification (SIC) of 4941 (i.e., Water Supply Facilities and Infrastructure) and (7) with a North American Industry Classification System (NAICS) of 221310 (i.e., Water Supply and Irrigation Systems). The eight companies ("Comparable Group") that met the criteria for selection are listed in Table

Acquisition Date Size Statistics							
	Revenues (Mill. \$)	<u>Customers</u>	<u>Population</u>	Customer <u>Density</u>			
Borough of Royers ford Wastewater System Assets	\$0.863	1,596	5,154	3.2			
Comparable Group							
American States Water Co	\$436.816	285,128	1,000,000	3.5			
American Water Works Co Inc	3,440.000	3,434,000	15,000,000	4.4			
Artesian Resources -CLA	80.411	92,640	300,000	3.2			
California Water Service Gp	698.196	520,600	2,000,000	3.8			
Essential Utilities, Inc.	838.091	1,026,704	3,000,000	2.9			
Middles ex Water Co	138.077	120,000	400,000	3.3			
SJW Corp	397.699	386,607	1,604,442	4.2			
York Water Co	48.437	71,411	201,000	2.8			
Median	\$417.258	335,868	1,302,221	3.5			

Table 2

We believe that similar economic, industry and business risks have affected the Comparable Group as those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike. Table 2 presents comparative statistics regarding total revenues, customers, population of the area served, and customer density (population ÷ customers). On average, the Comparable Group are larger than the Wastewater System. The relative size difference between the group and the Wastewater System suggests that the risk of the Wastewater System is greater than the Comparable Group. We will discuss the difference in risk resulting from size later in this report.

<u>Financial Review</u>. We conducted a financial review that considered the financial and operating statistics for the Wastewater System and the Comparable Group for the three-year period, 2016 to 2018. It is our opinion that the economic, industry and business risks affecting the Comparable Group selected are similar to those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike.

The determination of reasonable water rates and sewer rates for the Comparable Group is subject to rate regulation. For the Comparable Group, rate regulation serves as a substitute for competition in the marketplace since utility companies are precluded from exercising complete control over the price to be charged their customers. Under rate regulation, a cost of service formula is used to set the price for service charged to customers. The cost of service formula equates revenues to the sum of annual operating expenses, taxes other than income, depreciation expense, income taxes, and the product of the rate base times a fair rate of return.

It is the responsibility of the utility seeking changes in rates to present sufficient evidence to their regulators in support of their request. Historically, the Wastewater System's rates have not considered a fair rate of return nor taxes. That is, the Wastewater System's rates would have been higher and their financial results would have been healthier if they included a provision for a fair rate of return and taxes. Therefore, the results of the Wastewater System's historical financial performance shown on Exhibits 4 and 6 should be viewed with this knowledge.

<u>Financial Benchmark Analysis</u>. To gain insight into the risk differences between the Wastewater System and the Comparable Group, we reviewed financial ratios and coverages. Unfortunately, there is no single measure that best indicates investment risk from an investor's perspective. However, from a creditor's viewpoint, the best measure of investment risk is debt rating. The debt rating process generally provides a good measure of investment risk for common

stockholders because the factors considered in the debt rating process are usually relevant factors that a common stock investor would consider in assessing the risk of an investment.

The types of financial benchmarks applied by credit rating agencies such as Standard and Poor's ("S&P") for rating IOU public utility debt are broader than the traditional measure of financial risk, leverage. Besides reviewing the amounts of leverage employed (i.e., percentage of debt used in the capital structure), S&P also focuses on earnings protection and cash flow adequacy. During the period 2016-2018, the Wastewater System's financial benchmark ratios show (Exhibit 4) higher investment risk than the Comparable Group based on coverage and cash flow.

<u>Risk Analysis</u>. From an operations standpoint, the Wastewater System and the Comparable Group are indistinguishable. Both are required to meet SDWA and CWA requirements and are also required to provide safe and reliable services to their customers.

A basic premise of finance is the tradeoff between risk and return. That is, the higher the perceived risk, the higher the required return. Conversely, the lower the perceived risk, the lower the required return.

As mentioned previously, size is a determinant of risk. Based on size, the Wastewater System's risk is higher than the Comparable Group given Wastewater System's relatively small size. Table 2 details the size difference between the Wastewater System and the Comparable Group. As shown on Table 2, the Wastewater System is many times smaller than the Comparable Group.

Size is a determinant of risk because the loss of a large customer impacts a small company much more than a large company because a large customer of a small company usually accounts for a larger percentage of the small company's sales. Further, a larger company has much more

diversification in customer mix, economic conditions, source of supplies, weather, demographic, and financing than the Wastewater System. Because the larger Comparable Group has a more diverse geographic operation than the Wastewater System, it enables them to sustain earnings fluctuations caused by adverse weather conditions in one portion of its service territory. Further, the larger Comparable Group has a more diverse customer base and is less susceptible to local downturns associated with regional economic conditions than the Wastewater System.

Exhibit 5, Table 5.1, provides an illustration which shows company size has been inversely related to returns and the volatility of their common stock. Specifically, Ibbotson Associates sorted 3,113 publicly traded common stocks based on size of market value (market price multiples by the number of shares) and placed them into four different portfolios (quartiles). The common stock quartile return and the resultant size premium, column B, increased at an increasing rate as you move from a larger stock quartile to a smaller stock quartile. Similarly, the total risk, or standard deviation of annual returns (a measure of risk), also increased with decreasing company size (column C).

The Comparable Group's market value on March 31, 2020 ranged from \$345 million to \$21,637 million as shown on Table 5.2 of Exhibit 5. Based on their market value, the Comparable Group's median market quartile was 3. Wastewater System's market value would place them in quartile 4 based upon Wastewater System's financial statements and since the largest company in quartile 4 on Table 5.1 had a market value of \$728 million.

The change in risk adjusted common stock return rate between quartile 3 and quartile 4 (column J) is 78 basis points. The results of the illustration shown on Exhibit 5 suggests the Wastewater System's common equity cost rate could be about 78 basis points higher than the Comparable Group. The history of common stock returns indicates small company stocks are

riskier than large company stocks because as one moves from the larger to smaller quartiles, the standard deviation (a measure of risk) of returns increases. Historically, common stock investors have been compensated for taking on this additional risk by the higher returns provided by small company stocks.

In general, it is reasonable to expect small companies to be more risky than large ones. Exhibit 5 shows small company stocks have been riskier over a long period of time than larger company stocks. This makes sense due to the various advantages that larger companies have over smaller companies. For example, small capitalized firms generally have less access to capital and, overall, not as many financial resources. Further, small capitalized stocks have lower trading liquidity than larger ones.

The bond market, particularly the corporate bond market, also differentiates between large and small bond issues, where many large institutional investors such as pension funds and insurance companies require large blocks of bonds for liquidity and performance. Because of this size preference, smaller bond issuers often pay a cost rate premium when compared to larger bond issuers.

A higher return requirement for companies the size of Wastewater System translates into a higher capitalization rate. All else being equal, a higher capitalization rate will produce a lower value. However, all things are seldom equal as shown by the array of market multiples for the companies that comprise the Comparable Group (Exhibit 17, page 2). As shown on Exhibit 17, the Comparable Group's current market multiples do not suggest a higher capitalization rate due to size as there are numerous other risks affecting the Comparable Group's market values.

<u>Property Plant and Equipment Analysis</u>. The Wastewater System can best be characterized as a wastewater collection system and integrated treatment system. The

Wastewater System does not have the number of large treatment facilities that the Comparable Group has. The Wastewater System's gross property, plant and equipment is in relatively good condition given its age (Exhibit 6, Table 6.1) with 71% of their gross property, plant and equipment remaining undepreciated while 77% of the Comparable Group's gross property, plant and equipment remained undepreciated.

Property Plant and Equipment Analysis for Contributions. Most regulatory commissions determine rates for utilities based on a cost of service formula reflective of gross plant, property and equipment less accumulated depreciation (i.e., net property, plant and equipment) being roughly equal to investor provided capital (i.e., debt and equity capital) plus "cost free" capital such as customer contributions. Under 66 Pa. C.S. Section 1329 (Valuation of Acquired Water and Wastewater System'), the original source of funding for any part of the assets of a selling utility is not relevant to determining the value of a selling utility's assets.

We found a 21% (100% - 79%) difference between the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital on the valuation date (Exhibit 6, page 1, Table 6.2). The difference between the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital is comprised of "cost free" capital such as customer contributions.<sup>4</sup> This is evidenced by the 21% difference in the Comparable Group's net property, plant and equipment and the Comparable Group's investor provided capital (Exhibit 6, page 1, Table 6.2). Additionally, we verified known components of the Comparable Group's "cost free" capital by reviewing their individual balance sheets (Exhibit 6, page 1, Table 6.2) at year-end 2019.

<sup>4</sup> Under rate regulation "cost free" capital, such as customer contributions, is subtracted from plant assets in determining the dollar amount of property on which a utility may earn a "fair rate of return" and therefore, "cost free" capital has no economic value to investors.

We did not analyze the Wastewater System's property, plant and equipment for "cost free" capital, or customer contributions, because the original source of funding for any part of the assets of a selling utility is irrelevant to the valuation process under 66 Pa. C.S. Section 1329.

Capital Expenditures Analysis. The level of capital expenditures required for business purposes is an indicator of risk. The capital expenditures required over the next four years (2020-2023) for the Wastewater System was not available. Over the last four years, the Comparable Group had annual capital expenditures of about 9% of net plant (Exhibit 6, page 2, Table 6.3). During this same time, 2015-18, the Wastewater System had annual capital expenditures that averaged about 2% of net plant (based upon reported net plant). Therefore, the Wastewater System historical capital spending was lower than the Comparable Group's average.

Growth Rate Analyses. Higher growth rates are an indication of less risk. A review of the growth rates in revenue, operating income plus depreciation and operating income, reveal that the Wastewater System's revenues have been growing less than the Comparable Group (Exhibit 6, page 4, Table 6.4) over the last three years as has operating income plus depreciation and operating income. Prospectively, the Wastewater System's growth rates should continue to lag without increased rates and a higher level of planned capital additions.

Profit Margin Analyses. Higher profit margins are an indication of less risk. We compared earnings before interest and taxes ("EBIT") to revenues to see how successful the Wastewater System's management has been at generating income from the operation of the business. We also compared operating profitability or earnings before interest, tax, depreciation and amortization ("EBITDA") divided by total revenue to gain a clearer view of the Wastewater System's core profitability. The Wastewater System's EBITDA profit margins are about the same as the Comparable Group's but the EBIT profit margins are lower than the Comparable

Group's indicating more risk (Exhibit 6, page 5, Table 6.5).

#### **VALUATION**

The purpose of this valuation is to comply with 66 Pa. C.S. Section 1329 (Valuation of Acquired Water and Wastewater System') and conduct a fair market value appraisal of the Wastewater System's assets as of March 31, 2020 in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market and income approaches. Consequently, three basic valuation approaches were considered in this analysis: the cost approach, the income approach and the market approach.

The Cost Approach. In general terms, the cost approach measures value by determining the amount of money required to replace the future service capability of an asset. The cost approach is based on the premise that an informed purchaser will not pay more for a property than the cost of constructing an equally desirable substitute property, minus applicable depreciation, and assuming no undue delay.

The cost approach can include the use of the: original cost method; trended original cost method; reproduction cost method; and replacement cost method. From these cost bases, the calculated accrued depreciation (accumulated depreciation) is subtracted.

The original cost method begins with determining the original cost new ("OCN") measure of the cost of the assets when first constructed. The OCN is based on (1) a review and summary of the utility's accounting records, contractors' invoices and bid tabulations to determine the most appropriate data sources of each type of asset; (2) and the "pricing out" of assets using unit costs for each vintage year that property was placed in service.

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Under the trended cost method, the trended original cost ("TOC") measures the reproduction cost by multiplying the OCN by specific cost indices. The TOC is based on (1) a review and summary of the OCN at each location to determine those elements that would be replaced-in-kind, those that would be replaced with current methods and technologies and those that would not be replaced; (2) the selection of cost indexes and the calculation of trended original cost for those elements that would be replaced-in-kind; and (3) the estimation of the cost to purchase or construct those elements that would be replaced with current methods and technologies. The TOC is a procedure for estimating reproduction cost new of property and is sometimes used as a substitute for reproduction cost method and may be considered a form of the reproduction cost method, though not as precise.

The reproduction cost method begins with determining the reproduction cost new ("RPCN") by determining the current cost of constructing identical new property. The replacement cost method begins with estimating the replacement cost new ("RCN") based on approximating the current cost of replacing service of existing property with similar new property having the nearest equivalent utility to the property being valued (as defined by the *International Glossary of Business Valuation Terms*).

The RPCN and the RCN method include the research and verification of the inventory of a company's tangible personal property. Upon verification of the inventory, current material costs, current construction costs, engineering costs, administration costs, interest during construction, and entrepreneurial profit<sup>5</sup> are applied to the inventory listing in order to determine the RPCN and to determine the RCN.

<sup>5</sup> The administration costs and entrepreneurial profit are those of the contractors and engineers. The cost of overhead of the entity having the assets constructed can also be included. Generally overhead costs are allocated as part of an asset's cost, and usually represent at least 5% to 15% of infrastructure asset total costs.

The RPCN method assumes the assets would be recreated under the conditions existing at the date certain or valuation date, using the <u>exact</u> materials, standards, design, layout, and quality of workmanship used to create the original assets. The RCN assumes the assets would be recreated under the conditions existing at the date certain or valuation date, using <u>similar</u> materials, current standards, under current conditions with similarly functional property.

From these cost bases (i.e., OCN, TOC, RPCN and RCN), the calculated accrued depreciation (accumulated depreciation) is subtracted ("LD"). The calculated accrued depreciation is based on the assets' attained ages, and the service life of the assets. The cost bases of depreciable assets are reduced annually by the accumulated depreciation to reflect the loss in the service value of the assets since being constructed.

Depreciation represents the loss in property value from: physical deterioration; functional obsolescence; and external obsolescence. The accrued depreciation represents the sum of the annual depreciation amounts that would have been charged for depreciation at a point in time. Accrued depreciation is a calculated amount that would be in the book reserve account at a point in time using the current depreciation parameters (i.e., average service life). The average service lives of depreciable assets are based on the materials used for construction and how long the depreciable assets are likely to meet service demands.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized "survivor curves" known as the Iowa type curves. The accrued depreciation ratio from a survivor curve is a concept that is used to estimate the consumed service capacity of plant at a point in time. The survivor curve is used to find the applicable accrued depreciation factors of the assets to result in the total accumulated depreciation.

The Original Cost Method. For this report, the Borough provided us a copy of the Engineer's assessment report "Royersford Borough Sewerage Facilities Engineering Assessment and Original Cost" and related files prepared by Pennoni Associates Inc., to confirm the condition of the Wastewater System's property and equipment. We utilized the Engineering Assessment and calculated the Original Cost and Related Accrued Depreciation of the Wastewater System as of March 31, 2020 ("OCNLD Study") shown on Exhibit 7.

Page 1 of Exhibit 7 summarizes the original cost and related accrued depreciation by account for the Wastewater System as of March 31, 2020. The original cost was brought forward from page 2 of Exhibit 7 and the accrued depreciation from page 3 of Exhibit 7.

The original cost of the Wastewater System was determined from the Engineering Assessment and is summarized on page 2 of Exhibit 7. A summarizing analysis of the original cost of the Wastewater System by account and vintage year is shown on Exhibit 10.

The accrued depreciation calculation, shown on page 3 of Exhibit 7, was based on recognized methods using estimated survivor characteristics and the straight-line depreciation method. The estimated survivor curves are those used by other Pennsylvania wastewater companies and the material and age of the assets. The average service life procedure was used to apply the methods of depreciation to group properties for which a survivor curve was used to recognize the existence of life dispersion. The detailed calculations of accrued depreciation applicable to original cost by account and vintage are included in Exhibit 8.

The results of the OCNLD Study established that the OCN of the Wastewater System's utility plant in service as of March 31, 2020 was not less than \$7.7 million (\$7,666,493 rounded). The OCNLD Study also determined a theoretical calculated accrued depreciation reserve of the utility plant in service of \$2.2 million (\$2,213,429 rounded) as of March 31, 2020. After

factoring in the OCNLD Study's accrued depreciation reserve, the OCNLD of Wastewater System's utility plant in service as of March 31, 2020 was determined to be \$5.5 million (\$7,666,493 - \$2,213,429 = \$5,453,064).

The Replacement Cost Method. We utilized the OCN to calculate the trended original cost (TOC) measures, or the replacement cost of the depreciable assets (RCN), by multiplying the OCN by specific transition factors.<sup>6</sup> The result of this analysis is shown in the Replacement Cost and Related Accrued Depreciation of the Wastewater System as of March 31, 2020 ("RCNLD Study") shown on Exhibit 9.

Page 1 of Exhibit 9 summarizes the replacement cost new and related accrued depreciation by account for the Wastewater System as of March 31, 2020. The replacement cost new was brought forward from page 2 of Exhibit 9 and the accrued depreciation from page 3 of Exhibit 9.

The replacement cost new of the Wastewater System (see Exhibit 10) was calculated by trending the original cost measures by multiplying the OCN by Handy-Whitman indices and obsolescence factors. A summarizing analysis of the replacement cost new of the Wastewater System by account and vintage year and related transition factors is shown on Exhibit 10.7

The accrued depreciation calculation, shown on page 3 of Exhibit 9, was based on recognized methods using estimated survivor characteristics and the straight-line depreciation method. The estimated survivor curves are those used in the OCNLD Study. The average service life procedure was used to apply the methods of depreciation to group properties for which a survivor curve was used to recognize the existence of life dispersion. The detailed calculations of accrued depreciation applicable to replacement cost new by account and vintage are included in

<sup>6</sup> We used the TOC method because the mandated use of the Engineering Assessment's original cost essentially dictates the use of TOC over the reproduction cost or the replacement cost methods.

<sup>7</sup> All land and land rights were valued at original cost.

#### Exhibit 11.

The results of the RCNLD Study established that the RCN of the Wastewater System's utility plant in service as of March 31, 2020 was not less than \$43.5 million (\$43,486,278 rounded). The RCNLD Study also determined a theoretical calculated accrued depreciation reserve of the utility plant in service of \$30.2 million (\$30,232,058 rounded) as of March 31, 2020. After factoring in the RCNLD Study's accrued depreciation reserve, the RCNLD of Wastewater System's utility plant in service as of March 31, 2020 was determined to be \$13.3 million (\$43,486,278 - \$30,232,058 = \$13,254,220).

The results of the OCNLD and RCNLD Cost Approaches show a range of value for the Wastewater System of \$5.5 million to \$13.3 million and collectively, indicated value of \$13.3 million (\$13,254,220 rounded) for the Wastewater System based on the results of the RCNLD.

Benchmark Metrics. Besides providing an indication of value based upon a cost method, the OCN and OCNLD can also provide a meaningful metric to evaluate the reasonableness of other indications of value produced by other valuation methods. For example, the Comparable Group's market value of common equity plus minority interest, preferred stock, and total debt net of cash and cash equivalents ("Enterprise Value") is currently 1.73-times (Exhibit 17, page 2) their OCNLD or net property, plant and equipment. Similarly, the Comparable Group's Enterprise Value is currently 1.33-times (Exhibit 17, page 2) their OCN or gross property, plant and equipment.

The above-mentioned property, plant and equipment "multiples" understate the multiple applicable to the Wastewater System because some of the Comparable Group's property, plant and equipment includes assets that were originally financed with "cost free" capital such as

customer contributions.<sup>8</sup> Subtracting customer contributions ("CIAC") from the Comparable Group's property, plant and equipment (Exhibit 17, page 3) based on differences between investor provided capital and OCN results in CIAC adjusted multiples of 1.95-times OCNLD and 1.50-times OCN for the Comparable Group.

Multiplying the Wastewater System's OCN of \$7.7 million by the Comparable Group's 1.33-times OCN multiple or the 1.50-times contributions adjusted OCN multiple indicates a range of market value of \$10.2 million to \$11.6 million for the Wastewater System, similar to the RCNLD of \$13.3 million. Further, multiplying the Wastewater System's OCNLD of \$5.5 million by the Comparable Group's 1.73-times OCNLD multiple or the 1.95-times contributions adjusted OCNLD multiple indicates a range of market value of \$9.5 million to \$10.7 million for the Wastewater System, similar to the RCNLD of \$13.3 million. The aforementioned range of market values for the Wastewater System are not a substitute for an appraisal. However, the referenced range of market values for the Wastewater System can be a meaningful metric to evaluate the reasonableness of other indication of value produced by other valuation methods.

Comparing the results of the OCNLD method and RCNLD method to the benchmark metrics indicates that the value indicated by the OCNLD method of \$5.5 million is inconsistent with the benchmark metrics. Therefore, the results of \$13.3 million RCNLD method form the basis for our Cost Approach conclusion of \$13.3 million (\$13,254,220 rounded) and is used as the Cost Approach as part of our fair market value determination for the Wastewater System.

<sup>8</sup> Under rate regulation "cost free" capital, such as customer contributions, is subtracted from plant assets in determining the dollar amount of property on which a utility may earn a "fair rate of return" and therefore, "cost free" capital has no economic value to investors.

<sup>9</sup> Similarly, multiplying the Wastewater System's number of customers of 1,596 by the Comparable Group's \$9,216-times customer multiple indicates a market value of \$14.7 million, similar to the RCNLD of \$13.3 million.

The Income Approach. Capitalizing or discounting a future income stream to a present value provides an indication of the value of a business. The capitalization or discount rate reflects future growth, business risk, economic factors, financial risk and industry risk of the assets. The theory behind the income approach is that the value of a business is the future economic benefit that ownership will provide.

The two most common methods of the income approach to valuation are the capitalization of earning or cash flow method and the discounted cash flow method ("DCF"). The capitalization of earning method converts a single base economic income number to a value by dividing it by a capitalization rate. The capitalization of earnings is best suited when the future earnings, or cash flow, can be predicted. The implicit assumption in the capitalization of earning method is that the cash flow is a perpetuity and the capitalization rate is a constant.

The DCF method uses estimates of future free cash flow and discounts them to arrive at a present value or price of the cash flows. Generally, the DCF analysis begins with an estimate of the Debt Free Net Cash Flow over the next five to twenty years along with a terminal value. In each year, the Debt Free Net Cash Flow is comprised of projected EBIT, minus income taxes, plus projected depreciation and amortization, plus or minus projected changes in net cash working capital, less projected capital expenditures. The second element of the DCF analysis is the determination of an appropriate discount rate.

The capitalization rate used in the capitalization of earnings method and the discount rate used in the DCF method are related. The discount rate is the opportunity cost rate related to the risk of the cash flows. For the Wastewater System, the appropriate discount rate is the current municipal revenue bond yield on March 31, 2020 of 3.70%. The appropriate IOU discount rate is the current net of tax overall cost of capital (weighted average cost of capital) on March 31,

2020 and ranges from 5.95% to 7.16%.<sup>10</sup> The capitalization rate is simply the discount rate minus the expected growth rate. If no growth is assumed, the capitalization rate is equal to the discount rate.

The capitalization of earnings method is generally a reasonable approach for valuing the Wastewater System as it is currently owned (i.e., non-IOU) and operated. However, change in ownership of the Wastewater System to another large regional municipal authority ("MUNI") or IOU produces a myriad of problems for both the capitalization of earnings method and the DCF Method because any future cash flow estimates would be hypothetical or estimated due to the uncertain nature that would accompany new ownership including future rates, future expenses, future capital expenditures, taxes, and regulation.

For a MUNI, the appropriate discount rate is the current municipal revenue bond, 3.70%, because debt is the only major source of capital available to finance an acquisition (Exhibit 20, pages 2-6). Although a MUNI likely carries equity on their books (balance sheet), all existing equity is already invested in other assets and therefore, cannot be used to finance an acquisition. For valuation purposes, an embedded cost of debt, or the historical cost of all debt issuances outstanding is not used because this capital is already invested in assets. Whereas the marginal cost of debt, 3.70%, at the valuation date is used in accordance with accepted valuation practices and used for market valuation purposes.

As discussed previously, for an IOU, the appropriate discount rate is the net of tax overall

<sup>10</sup> Both the American Society of Appraisers, ASA Business Valuation Standards, 2009, and the National Association of Certified Valuation Analysts, Professional Standards, 2007, use the same definition: "Weighted Average Cost of Capital (WACC). The cost of capital (discount rate) determined by the weighted average, at market values, of the cost of all financing sources in the business enterprise's capital structure."

<sup>11</sup> For example, when a municipal or government entity, such as the Commonwealth of Pennsylvania, finance construction of a road or bridge, they only consider the marginal debt cost despite having "equity" reflected on their books (balance sheet).

cost of capital (weighted average cost of capital), 5.95% to 7.16% (Exhibit 20, pages 2-9). In this instance, the net of tax overall cost of capital (weighted average cost of capital) is based on the Comparable Group's market value capital structure of 24.4% debt and 75.6% equity, a market cost of debt of 3.69% and a range of market cost of equity of 7.01% to 8.61%. The Comparable Group's net of tax overall cost of capital (weighted average cost of capital) is used as a proxy to conform to the "hypothetical buyer" or "hypothetical seller" of fair market valuation. Use of the buyer's net of tax overall cost of capital (weighted average cost of capital) would produce an investment valuation, not a fair market valuation. 13

We began the Income Approach for the Wastewater System by first determining the Debt Free Net Cash Flow to be capitalized or discounted. The Debt Free Net Cash Flow is comprised of EBIT, minus income taxes, plus depreciation and amortization, plus or minus projected changes in net cash working capital, less projected capital expenditures. The development of Wastewater System's Debt Free Net Cash Flow begins on Exhibit 1 and ends on Exhibits 12 through 16.

Differences in accounting practices exist between GASB, DCED and FASB because there are differences in their purpose. That is, the GASB's and DCED's motivations are to make sure government entities are accountable for the money they receive from the public or taxpayers, while the FASB's focus is to help investors and creditors make decisions. These differences in accounting objectives between GASB, DCED and FASB can present a problem when it comes to

<sup>12</sup> For example, see <a href="http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905">http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905</a>. Also see <a href="http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/">http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/</a>, or <a href="http://accountingexplained.com/misc/corporate-finance/wacc">http://accountingexplained.com/misc/corporate-finance/wacc</a>.

<sup>13</sup> We did not use the 6.55% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation because a "hypothetical buyer" cannot finance an acquisition at such a rate and therefore, its use would provide a meaningless result. Where the 6.55% DSIC related cost was determined based the Comparable Group's book value capital structure of 46.6% debt and 53.4% equity, a cost of debt of 3.69% and a DSIC cost of equity of 9.95%. However, we note the 6.55% Comparable Group's DSIC related net of tax overall cost of capital falls within the 5.95% to 7.16% range of discount rates used in our Income Approach.

comparing the financial statements of entities that are either publicly or privately owned, such as the Wastewater System and the Comparable Group.

Exhibit 1 presents the Wastewater System's financial information contained in their financial statements, so it is more consistent with the Comparable Group and more practical for valuation purposes. The information on Exhibit 1 was used to develop Exhibits 12 through 16. As noted previously, the Wastewater System's financial statements and their rates did not include taxes nor a fair rate of return. Accordingly, on Exhibits 13 through 16 we adjusted the Wastewater System's post-2020 financial information for pro forma expenses and returns to be reflective of a MUNI or IOU ownership.

The Capitalization of Earnings Method. The capitalization of earnings method begins with an estimate of the income or cash flow producing capabilities of the business (Exhibit 12) for a recent time period and assumes current ownership and operations. We began the capitalization of earning method for the Wastewater System by first determining the Debt Free Net Cash Flow to be capitalized. The Debt Free Net Cash Flow is comprised of current EBIT, minus income taxes, plus current depreciation and amortization, plus or minus projected changes in net cash working capital, less projected capital expenditures. Specifically, our capitalization of earnings method capitalizes Wastewater System's current (2020) budgeted Debt Free Net Cash Flow. The second element of the capitalization of earnings method is the determination of an appropriate capitalization rate. Our analysis uses the current municipal revenue bond yield on March 31, 2020 of 3.70% (Exhibit 12, line 24) as a capitalization rate. We also did a second capitalization of earnings calculation based on a 3.50% capitalization rate (Exhibit 12, line 27), or 20-basis points below the current level to reflect the unique population growth projected for the Wastewater

System's because we assumed the Wastewater System's Debt Free Net Cash Flow growth will be at least 0.2% (20-basis points).

We computed the Wastewater System's indicated value based on the capitalization of earnings method by dividing the projected Debt Free Net Cash Flow by the capitalization factor. The capitalization factor is equal to the discount rate minus assumed growth in projected Debt Free Net Cash Flow. We considered two ranges of growth in the capitalization of earnings method, no growth and 0.2% growth. However, based upon our quantitative and qualitative analysis, and the projected population growth, we believe the 0.2% growth scenario is the most probable for the Wastewater System based on current ownership and operations.

We adjusted the Wastewater System's Debt Free Net Cash Flow (Exhibit 12, line 23) to account (subtract) for the average projected capital expenditures of \$70,633 if system is not sold. Label Exhibit 12 shows the results of the capitalization of earnings method. For the Wastewater System, the capitalization of earnings method using a 3.70% capitalization rate (no growth) indicates a value of \$6.6 million (without rate increases) and \$4.7 million (without rate increases) on proforma 2020 results. The capitalization of earnings method using a 3.50% capitalization rate (growth) indicates a value of \$7.0 million (without rate increases) and \$5.0 million (without rate increases) on pro forma 2020 results. Collectively, for Wastewater System, we believe the 0.2% growth scenario is the most probable result based on current ownership and operations and therefore, the capitalization of earnings method suggests a value of \$5.0 million (without rate increases) based on pro forma 2020 results.

<sup>14</sup> The capital expenditures of \$70,633 utilized is the 2017-2020 average capital expenditure due to lack of projected information.

The DCF Method. For the Wastewater System, the DCF method considers two types of discounted cash flow analyses, the EBIT and EBITDA terminal value model ("Market Multiple DCF") and the capitalization of terminal value model ("Capitalization DCF"). We show the results of these models on Exhibits 13 through 16.

The DCF method begins with an estimate of the income or cash flow producing capabilities of the business. Specifically, our DCF methods use estimates of the results of the Wastewater System's operations over the next 24 years. We use two different assumptions for the Wastewater System's future operations in the DCF methods: MUNI ownership shown on Exhibits 13 and 15; and IOU ownership shown on Exhibits 14 and 16.

Under the MUNI ownership the discount rate is the current 3.70% municipal revenue bond yield and under the IOU ownership the discount rate is the current net of tax overall cost of capital, reflecting the upper and lower range of the net of tax overall cost of capital for the Comparable Group of 5.95% to 7.16%. For the Capitalization DCF, the capitalization rate reflects a scenario of no additional growth (i.e., discount rate = capitalization rate) and a scenario of minimal growth of 0.2% (i.e., discount rate -0.2% growth = capitalization rate) under MUNI ownership and 0.2% (i.e., discount rate -0.2% growth = capitalization rate) under IOU ownership based on inflation, changes in Debt Free Net Cash Flows and the projected population growth.

We computed the Market Multiple DCF terminal values by multiplying the Wastewater System's projected EBIT and EBITDA by the Comparable Group's adjusted multiples of 27.4-times and 19.4-times, respectively. We computed the Capitalization DCF terminal value by dividing the projected Debt Free Net Cash Flow by the capitalization factor. The capitalization factor is equal to the discount rate minus assumed growth in projected Debt Free Net Cash Flow.

Exhibit 13 shows the results of the DCF method under the MUNI ownership scenario. The results of the Capitalization DCF shown on Exhibit 13 show a range of value for the Wastewater System of \$7.7 million to \$7.9 million. The results of the Market Multiple DCF shown on Exhibit 13 show a value of \$8.3 million. Collectively, the DCF method based on the MUNI ownership scenario indicates a value of \$8.1 million for the Wastewater System based on the 0.2% growth assumption.

Exhibit 14 shows the results of the DCF method under the IOU ownership scenario. The results of the Capitalization DCF shown on Exhibit 14 show a range of value for Wastewater System of \$4.7 million to \$5.8 million. The results of the Market Multiple DCF shown on Exhibit 14 show a range of value of \$6.5 million to \$7.7 million. Collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of \$6.1 million for the Wastewater System.<sup>15</sup>

The DCF method based on the MUNI ownership scenario indicates a value of \$8.1 million and the DCF method based on the IOU ownership scenario indicates a value of \$6.1 million. Collectively, the DCF method indicates a value of \$7.1 million based on OCNLD.

Change in ownership of the Wastewater System to a MUNI or an IOU produces a myriad of problems for the DCF Method. Under a MUNI purchase, future cash flow estimates are uncertain because they would reflect the actual price paid for the acquisition. Under an IOU purchase and the associated regulation by the PUC, future cash flow estimates are uncertain since

<sup>15</sup> If we used the 6.55% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation shown on Exhibit 14, the results of the Capitalization DCF would show a value for Wastewater System of \$5.2 million. Further, the results of the Market Multiple DCF would show a value of \$7.1 million and collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption would indicates a value of \$6.1 million for the Wastewater System. The DCF method based on the MUNI ownership scenario indicates a value of \$8.1 million and the DCF method based on the IOU ownership scenario indicates a value of \$6.1 million. Collectively, the DCF method indicates a value of \$7.1 million when DSIC is considered based on OCNLD.

regulation by the PUC would result in an unknown determination of rate base and the related depreciation and authorized/achieved earning levels. In the current instance, we know the Market Approach and the Cost Approach (RCNLD) indicate values considerably higher than the OCNLD value.

Therefore, we recalculated our valuations shown on Exhibits 13 and 14 on Exhibits 15 and 16 to reflect revenues and cash flows derived from an earnings base between OCNLD and RCNLD. Exhibit 15 shows the results of the DCF method under the MUNI ownership scenario. The results of the Capitalization DCF shown on Exhibit 15 show a range of value for the Wastewater System of \$12.4 million to \$12.7 million. The results of the Market Multiple DCF shown on Exhibit 15 show a value of \$16.7 million. Collectively, the DCF method based on the MUNI ownership scenario indicates a value of \$14.7 million for the Wastewater System based on the 0.2% growth assumption.

Exhibit 16 shows the results of the DCF method under the IOU ownership. The results of the Capitalization DCF shown on Exhibit 16 show a range of value for Wastewater System of \$9.5 million to \$11.7 million. The results of the Market Multiple DCF shown on Exhibit 16 show a range of value of \$14.5 million to \$17.7 million. Collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption indicates a value of \$13.1 million for the Wastewater System.<sup>16</sup>

<sup>1</sup> 

<sup>16</sup> If we used the 6.55% Comparable Group's DSIC (distribution system improvement charge) related net of tax overall cost of capital in our valuation shown on Exhibit 16, the results of the Capitalization DCF would show a value for Wastewater System of \$10.5 million. Further, the results of the Market Multiple DCF would show a value of \$16.0 million and collectively, the DCF method based on the IOU ownership scenario and a 0.2% growth assumption would indicate a value of \$13.3 million for the Wastewater System. The DCF method based on the MUNI ownership scenario indicates a value of \$14.7 million and the DCF method based on the IOU ownership scenario using DSIC indicates a value of \$13.3 million. Collectively, the DCF method indicates a value of \$14.0 million when DSIC is considered..

The DCF method based on the MUNI ownership scenario indicates a value of \$14.7 million and the DCF method based on the IOU ownership scenario indicates a value of \$13.1 million. Collectively, the DCF method indicates a value of \$13.9 million based on the Income Approach.

The Market Approach. There are two methods of doing the Market Approach to valuation: the market multiples method; and the selected transaction method. We developed both the market multiples method and the selected transaction method in our valuation analysis.

The Market Multiples Method. The market multiples method valuation begins by reviewing market price data of corporations engaged in the same or a similar line of business as the Wastewater System. We relied upon market data for the Comparable Group for these purposes since they are equally affected by similar economic, industry, and business risks as the Wastewater System. Since no marketplace exists for the common stock of the Wastewater System, an alternative to estimate the value of the Wastewater System is to analyze the price investors are willing to pay for the publicly traded common stock of companies that are similar to the Wastewater System. The specific market price data reviewed includes the market value of common equity plus minority interest, preferred stock, and total debt net of cash and cash equivalents (i.e., Enterprise Value). Where the market value of common equity is the product of multiplying the closing stock price by the number of common shares outstanding. The Enterprise Value provides an indication of the value of the entire business. The Enterprise Value multiples ("Market Multiples") are shown on Exhibit 17. For the Comparable Group, the Market Multiples were calculated as of March 31, 2020 based on the latest twelve months of financial data available at the appraisal date.

We used the Comparable Group's Enterprise Value at March 31, 2020 and calculated Market Multiples of: revenue ("Revenue"); EBITDA; EBIT; gross property plant and equipment

("GPPE"); net property plant and equipment ("NPPE"); investor provided capital ("ICAP"); utility customers ("Customers"); and population of the area served ("Population").

The next step in the market multiples method valuation was applying the Comparable Group's Market Multiples to corresponding financial and operating statistics of the Wastewater System. The Comparable Group's Market Multiples reflect their capitalization rate of each financial and operating statistic. For example, a Market Multiple of EBIT of 16.14 times equates to a capitalization of EBIT of 6.20% ( $1 \div 16.14 = 6.20\%$ ). Each capitalization rate is unique to the entity and the statistic being evaluated and reflects the growth and investment risk of the entity.

We believe that similar economic, industry and business risks have affected the Comparable Group as those faced by the Wastewater System. However, consideration must be given to the fact that no two companies are exactly alike. On average, the Comparable Group are larger than the Wastewater System. The relative size difference between the Comparable Group and Wastewater System suggests that the risk to investors of the Wastewater System is higher than the Comparable Group. Further, based upon our quantitative and qualitative analysis, we concluded that the Wastewater System has more risk than the Comparable Group.

Accordingly, the Comparable Group's Market Multiples are not directly applicable to the Wastewater System. We assumed the higher risk due to the Wastewater System's size is added to the higher risk found in our quantitative and qualitative analysis. This combined risk was assumed to result in the Wastewater System being 10% more risky than the Comparable Group and produces a 90% (100% - 10%) base risk adjustment to the Comparable Group's Market Multiples. We applied the 90% base risk adjustment to all financial multiples. For example, the Comparable Group's ICAP multiple was multiplied by 90% to produce a lower multiple applicable to the Wastewater System to account for risk differences.

The Comparable Group's Market Multiples of Revenue, EBITDA, and EBIT were adjusted for the base risk adjustment to produce multiples applicable to the Wastewater System (Exhibit 17, page 3). The Comparable Group's Market Multiples of GPPE and NPPE were adjusted for the base risk adjustment and for their percentage of property plant and equipment (Exhibit 17, page 3) financed with "cost free" capital such as contributions because "cost free" capital should not be part of this valuation process. The Comparable Group's Market Multiples of Customers and Population were adjusted for the type of assets of the Wastewater System and growth.

The net risk adjustments to the Comparable Group's Market Multiples are shown on page 1 of Exhibit 17. The adjustments to the Comparable Group's Market Multiples are: 90% of ICAP (more risk/less growth), 102% of GPPE (more risk/lower growth and contributions), 102% of NPPE (more risk/lower growth and contributions), 90% of Revenue (more risk/lower growth); 90% of EBIT and 90% EBITDA (more risk/lower growth); and 100% of Customers and Population (growth and contributions).

Page 1 of Exhibit 17 shows the market multiples method indicated values based on: Revenue, EBIT and EBITDA (collectivity called "Income Statement Items"); ICAP, GPPE and NPPE (collectivity called "Capital Items"); and Customers and Population (collectivity called "Demographics Items"). For most municipal utilities, the indicated values based on Income Statement Items are far below the indicated values that are based on Capital Items and those based on Demographics Items. We attribute this to the dollars of Revenue, EBIT and EBITDA do not reflect any provision for taxes while the multiples for the Comparable Group do.<sup>17</sup> Consequently,

<sup>17</sup> The Revenue, EBIT and EBITDA for the Wastewater Systems also do not include a fair rate of return.

we do not believe the results of the multiples of Revenue, EBIT and EBITDA are meaningful and should not be used for municipal utilities.

In the market multiples method, the meaningful Market Multiples of the Comparable Group are used to develop an indicated value of the Wastewater System. This is accomplished by multiplying the Wastewater System's financial and operating data by the Comparable Group's median Market Multiples (Exhibit 17, page 1). The results of the market multiples method (Exhibit 17, page 1) show a range of value for the Wastewater System of \$9.4 million to \$14.3 million and collectively, indicate value of \$11.8 million based on the meaningful Market Multiples.

The Selected Transactions Method. The selected transactions method entails analyzing certain public information relating to selected transactions involving the purchase or sales of businesses involved in the same or similar business line. The number of selected transactions available for review is limited because most acquisitions in the water and wastewater industry involve small acquisitions for which no public information exits. Additionally, not all transactions are comparable since some purchase prices may only involve the acquisition of the common stock, purchase prices may be net of cash and others may only involve assets. In any of these instances, the derived multiples (e.g., purchase price as a multiple of: Revenues; EBITDA; EBIT; etc.) would understate (overstate) the multiples involving a purchase price for an entire business enterprise (common stock) or business assets.

The selected transactions method provides a valuation of a business, or assets, at the time the acquisition of that business was completed, rather than the appraisal date market value (March 31, 2020). The change in the Comparable Group's market multiples of NPPE and ICAP, shown in Figure 1, shows the change in market valuation over a recent 72 month period. In Figure 1 the

Comparable Group's market multiples of NPPE and ICAP were indexed to March 31, 2020 valuation multiples so that the March 31, 2020 valuation multiples have an index value of 100.

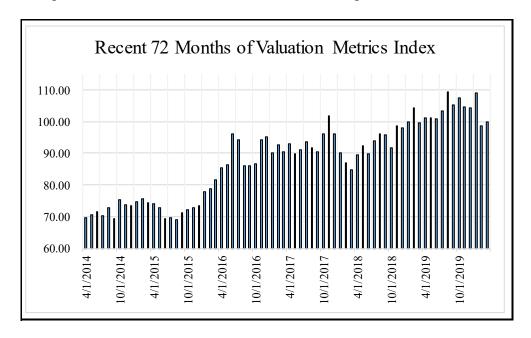


Figure 1

The index of the Comparable Group's appraisal date (March 31, 2020) valuation multiples is 1% higher than 2020's lowest levels and 9% below the 2020's highest levels and 1% higher than 2019's lowest levels and 10% below 2019's highest levels. The index of the Comparable Group's March 31, 2020 valuation multiples are 15% higher than 2018's lowest levels and 1% above 2018's highest levels, are 15% higher than 2017's lowest levels and 2% below 2017's highest levels, are 4% to 22% higher than 2016's, and are 24% to 31% higher than 2015's multiples' index.

Because of the rapid rise in valuation multiples since early 2016 we limited our search for selected transactions to: (1) those that occurred in 2016 or later; (2) purchases of water or sewer systems; (3) assets being purchased; and (4) those that did not discount "cost free" capital/customer contributions in the valuation. The selected transactions that met the stated selection criteria are shown on pages 2 and 3 of Exhibit 18.

Using certain public information, we calculated sales price multiples of selected transactions involving the purchase or sale of businesses that met the stated selection criteria. The calculated sales price multiples included transactions multiples of: ICAP; GPPE; NPPE; Revenue; EBITDA; EBIT; Customers; and Population. As shown on pages 2 and 3 of Exhibit 18, the selected transactions method indicated values based on the Income Statement Items are far different than the Wastewater System's selected transactions method indicated values based on Capital Items and those based on Demographics Items. We attribute this to the fact the selling utilities' dollars of Income Statement Items do not reflect any provision for taxes. <sup>18</sup> Consequently, we do not believe the results of the multiples of Income Statement Items are meaningful.

The selected transaction method relies on and reflects information that was known, exante, at the time the winning purchase bid (price) was given and the metrics used are time period sensitive. For example, bids made in 2016 only reflects metrics from 2015 since the results of 2016 could not be known at the time of the bids. The selected transaction method ex-ante information (metrics) is shown on page 2 of Exhibit 18. Complete information only exists for a few of the transactions, with only Customers and Population having ample data for all transactions as is evident from the information shown (Exhibit 18, page 2). Therefore, we supplemented the ex-ante data with ex-post information of GPPE and NPPE (collectivity called "Asset Items") as shown on page 3 of Exhibit 18.

In the selected transactions method, the significant selected transactions multiples of the selling utilities are used to develop an indicated value of the Wastewater System. This is

<sup>18</sup> Further, Revenue, EBIT and EBITDA for the Wastewater Systems also do not include a fair rate of return.

accomplished by multiplying the Wastewater System's financial and operating data by the selling utilities' transactions multiples (Exhibit 18, pages 2 and 3). The results of the selected transactions method (Exhibit 18, page 1) show a range of value for the Wastewater System of \$10.2 million to \$13.8 million when all transactions are considered and a range of value of \$9.5 million to \$19.0 million when fully integrated assets are solely considered. Collectively, the indicate value for the Wastewater System is \$13.1 million after giving additional weight to the integrated assets selected transactions multiples.

In 2018 two IOUs, Connecticut Water Service, Inc and SJW Group, announced a planned merger with Connecticut Water being acquired by SJW through a stock purchase. SJW Group's purchase of Connecticut Water was approved in late 2019. Although this acquisition is not directly applicable to the Wastewater System, it does provide a range of indicated value for the Wastewater System (Exhibit 18, page 4) which we relied on as a check. In this selected transaction, the significant selected transactions multiples of the selling utilities (Connecticut Water) are used to develop an indicated value of the Wastewater System. This is accomplished by multiplying the Wastewater System's financial and operating data by the selling utilities' transactions multiples. The results of the Connecticut Water selected transactions show a range of value for the Wastewater System of \$10.9 million when the reported significant selected transactions multiples are considered and a value of \$12.0 million when the reported significant selected transactions multiples have been adjusted for "cost free" capital. Since the Connecticut Water transaction is a stock transaction, we believe it may understate the value of an asset purchase. However, we also note that Connecticut Water is a fully integrated company which is publicly traded while the Wastewater System is not.

The results of the market multiples method shown on Exhibit 17 indicate value of \$11.8 million. The results of the selected transactions method shown on Exhibit 18 indicate value of \$13.1 million. Based on the aforesaid results, the Market Approach to valuation indicates a value of \$12.5 million for the Wastewater System based on the results of the market multiples method and the selected transactions method.

Conclusion. We summarize our findings for the Wastewater System on Exhibit 19. Our findings for the Wastewater System is based on the Cost, Market and Income Approaches to valuation. We used seven methods under the Cost, Market and Income Approaches to valuation: Original Cost Method, Replacement Cost Method, Capitalization of Earnings Method, Market Multiple Discounted Cash Flow Method, Capitalization Discounted Cash Flow Method, Market Multiples Method, and the Selected Transactions Method.

The results from the capitalization of earnings method, market multiple discounted cash flow method and the capitalization discounted cash flow method form the basis for our Income Approach. Our Market Approach is supported by the market multiples method and selected transactions method. The results from the original cost method form the basis for our replacement cost method, and both methods form the basis for our Cost Approach.

We considered the results of each approach as an indicator of value individually, or as independent indicators of value. Therefore, all three approaches to valuation were given consideration in arriving at our estimate of the fair market value conclusion. Based on these facts, our conclusion regarding the fair market value is \$13.2 million. Our conclusion regarding the fair market value can be described by the weights and the specific results of the three approaches to valuation that are shown on Exhibit 19. The results of our analyses, shown on Exhibit 19, indicate

a range of value for the Wastewater System of \$12.5 million to \$13.9 million and collectively indicate a fair market value of \$13,219,000 for the Wastewater System.

APPENDIX A - QUALIFICATIONS

### APPENDIX A

Professional Qualifications
of
Harold Walker, III
Manager, Financial Studies
Gannett Fleming Valuation and Rate Consultants, LLC.

## **EDUCATION**

Mr. Walker graduated from Pennsylvania State University in 1984 with a Bachelor of Science Degree in Finance. His studies concentrated on securities analysis and portfolio management with an emphasis on economics and quantitative business analysis. He has also completed the regulation and the rate-making process courses presented by the College of Business Administration and Economics Center for Public Utilities at New Mexico State University. Additionally, he has attended programs presented by The Institute of Chartered Financial Analysts (CFA).

Mr. Walker was awarded the professional designation "Certified Rate of Return Analyst" (CRRA) by the Society of Utility and Regulatory Financial Analysts. This designation is based upon education, experience and the successful completion of a comprehensive examination. He is also a member of the Society of Utility and Regulatory Financial Analysts (SURFA) and has attended numerous financial forums sponsored by the Society. The SURFA forums are recognized by the Association for Investment Management and Research (AIMR) and the National Association of State Boards of Accountancy for continuing education credits.

Mr. Walker is also a licensed Municipal Advisor Representative (Series 50) by Municipal Securities Rulemaking Board (MSRB) and Financial Industry Regulatory Authority (FINRA).

### **BUSINESS EXPERIENCE**

In 1996, Mr. Walker joined Gannett Fleming Valuation and Rate Consultants, LLC. In his capacity as Manager, Financial Studies and for the past twenty years, he has continuously studied rates of return requirements for regulated firms. In this regard, he supervised the preparation of rate of return studies in connection with his testimony and in the past, for other individuals. He also assisted and/or developed dividend policy studies, nuclear prudence studies, calculated fixed charge rates for avoided costs involving cogeneration projects, financial decision studies for capital budgeting purposes and developed financial models for determining future capital requirements and the effect of those requirements on investors and ratepayers, valued utility property and common stock for acquisition and divestiture, and assisted in the private placement of fixed capital securities for public utilities.

Head, Gannett Fleming GASB 34 Task Force responsible for developing Governmental Accounting Standards Board (GASB) 34 services, and educating Gannett Fleming personnel and

Gannett Fleming clients on GASB 34 and how it may affect them. The GASB 34 related services include inventory of assets, valuation of assets, salvage estimation, annual depreciation rate determination, estimation of depreciation reserve, asset service life determination, asset condition assessment, condition assessment documentation, maintenance estimate for asset preservation, establishment of condition level index, geographic information system (GIS) and data management services, management discussion and analysis (MD&A) reporting, required supplemental information (RSI) reporting, auditor interface, and GASB 34 compliance review.

In 2004, Mr. Walker was elected to serve on the Board of Directors of SURFA. Previously, he served as an ex-officio directors as an advisor to SURFA's existing President. In 2000, Mr. Walker was elected President of SURFA for the 2001-2002 term. Prior to that, he was elected to serve on the Board of Directors of SURFA during the period 1997-1998 and 1999-2000. Currently, he also serves on the Pennsylvania Municipal Authorities Association, Electric Deregulation Committee.

Prior to joining Gannett Fleming Valuation and Rate Consultants, LLC., Mr. Walker was employed by AUS Consultants - Utility Services. He held various positions during his eleven years with AUS, concluding his employment there as a Vice President. His duties included providing and supervising financial and economic studies on behalf of investor owned and municipally owned water, wastewater, electric, natural gas distribution and transmission, oil pipeline and telephone utilities as well as resource recovery companies.

Mr. Walker was also the Publisher of C.A. Turner Utility Reports from 1988 to 1996. C.A. Turner Utility Reports is a financial publication which provides financial data and related ratios and forecasts covering the utility industry. From 1993 to 1994, he became a contributing author for the Fortnightly, a utility trade journal. His column was the Financial News column and focused mainly on the natural gas industry.

### **EXPERT TESTIMONY**

Mr. Walker has submitted testimony or been deposed on various topics before regulatory commissions and courts in 25 states including: Arizona, California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Hampshire, Nevada, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia. His testimonies covered various subjects including: fair market value, the taking of natural resources, appropriate capital structure and fixed capital cost rates, depreciation, fair rate of return, purchased water adjustments, synchronization of interest charges for income tax purposes, valuation, cash working capital, leadlag studies, financial analyses of investment alternatives, and fair value.

### PROFESSIONAL AFFILIATIONS

Society of Utility and Regulatory Financial Analysts Board of Directors, 1996-2000, 2005-2008 President, 2000-2002 Treasurer, 1996-1998

National Association of Water Companies Pennsylvania Municipal Authorities Association Electric Deregulation Committee

### TECHNICAL PUBLICATIONS & PRESENTATIONS

Walker, Harold. Panelist "Now is the Time to Maximize Your Utility's Value." Presented at the Pennsylvania Association of Township Supervisors 97th Annual State Convention, April 2019.

Walker, Harold. Panelist "Fair Market Acquisitions Debate." Presented at National Association of Regulatory Utilities Commissioners Winter Policy Summit, February 2019.

Walker, Harold. Panelist "Fair Market Value Legislation." Presented at the National Association of Water Companies Water Summit, October 2018.

Walker, Harold. Panelist "Leveraging Water & Sewer to Address Roads, Schools, and Pension Obligations." Presented at the Maryland Association of Counties 2018 Summer Conference, August 2018.

Walker, Harold. Panelist "Is the Glass Half Full or Half Empty? Valuing Municipal Water Acquisitions." Presented at the Mid-Atlantic Conference of Regulatory Utilities Commissioners 23rd Annual Education Conference, June 2018.

Walker, Harold. "Valuation and Inventory of Governmental Assets Under GASB 34." Presented at the Society of Depreciation Professionals 21st Annual Conference, September 2007.

Walker, Harold. "The Paradox of State Regulatory Opinions and Investor Behavior." Presented at the National Association of Water Companies New England Chapter conference, November 2006.

Walker, Harold. "Valuation and Inventory Under GASB 34." Presented at the Government Finance Officers Association South Central Pennsylvania Regional Chapter conference, August 2003.

Walker, Harold. "Valuation and Inventory under GASB 34." Presented at the Government Finance Officers Association Southeastern Pennsylvania Regional Chapter conference, April 2002.

Walker, Harold. "GASB 34 & Your Infrastructure." *The Authority*, August 2001, Volume XXXII, No. 4, pages 10-13.

Walker, Harold. "Managing Risk." Conference Chairperson, presented at the Society of Utility & Regulatory Financial Analysts 33rd Financial Forum, April 2001.

Walker, Harold. "Paying for Your MSW System - Waste Generation Fees." Presented at the Federation of New York Solid Waste Association Solid Waste/Recycling Conference and Trade Show, May 2001.

Walker, Harold. "Statement No. 34 of the Government Accounting Standards Board." Presented at the Pennsylvania Association of Township Supervisors 79th Annual State Convention, April 2001.

Walker, Harold. "Cost of Capital Issues." Presented at the National Association of Water Companies New England Chapter conference, October 2000.

Walker, Harold, Timothy Hartman, and Mark Everett. "Waste Generation Study: Life After Flow Control." Presented at Waste Con 2000, October 1999.

Walker, Harold, and Timothy Hartman. "The Enhancement of Revenues Through a Waste Generation Study." Presented at SWANA's Planning and Management Symposium, July 1999.

APPENDIX B - KNOWN IMPACT OF COVID-19

### APPENDIX B

# Known Impact of COVID-19

On March 11, 2020 the World Health Organization ("WHO") declared a quickly spreading coronavirus infection a pandemic ("COVID-19"). A coronavirus is a kind of common virus that causes an infection in sinuses, or upper throat. An outbreak of a new strain of coronavirus was first reported in Wuhan, China in late 2019 and quickly spread around the world. The WHO named the virus SARS-CoV-2, and the disease COVID-19. A pandemic is a disease outbreak that spreads widely across countries or continents. Categorizing a disease as a pandemic does not signify lethality nor economic calamity. Rather, labeling a disease as a pandemic indicates its spread over a wide geographic area and affecting a high proportion of the population.

The valuation date (March 31, 2020) is the specific date at which the value of the Wastewater System is based. Generally, only the circumstances existing at the valuation date and events occurring up to the valuation date are considered. Events which could affect the value may occur subsequent to the valuation date but have no bearing on an appraised value.

Nevertheless, we have included subsequent information since the valuation date in this appendix (Appendix B) regarding COVID-19's known impact for informational purposes only and this information does not affect the determination of value as of our valuation date of March 31, 2020.

The United States Environmental Protection Agency ("EPA") is providing information on drinking water and wastewater to provide clarity to the public regarding COVID-19. According to EPA, the COVID-19 virus has not been detected in drinking-water supplies. Based on current

evidence, the risk to water supplies is low.<sup>19</sup> EPA sent a "letter to Governors in all 50 states, territories, tribes and Washington, DC, requesting that water and wastewater workers, as well as the manufacturers and suppliers who provide vital services and materials to the water sector, are considered essential workers and businesses by state authorities when enacting restrictions to curb the spread of COVID-19."<sup>20</sup>

In response to COVID-19 the Federal Reserve has provided monetary and fiscal stimulus to increase liquidity in the form of new fiscal stimulus programs and rate cuts. "For context, new fiscal stimulus and total fiscal deficits in the US are roughly double the levels seen in 2008-2009, and the US fiscal deficit we project for 2020 of 15%-18% is only matched by deficits seen at the height of WWII in 1942-1943." The combined result of these actions by the Federal Reserve and investors' flight to quality have resulted in artificial and historically low risk-free rates as measured by the 30-year treasury bond yield. However, public utility bond yields have not fluctuated (decreased) nearly to the degree which yields of 30-year treasury bonds have as is evident by the widening of the yield spread or default spread shown in **Table 3** below.

<sup>19</sup> https://www.epa.gov/coronavirus, 5/27/20.

<sup>20 &</sup>lt;a href="https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater">https://www.epa.gov/coronavirus/coronavirus-and-drinking-water-and-wastewater</a>, 5/27/20

<sup>21</sup> https://www.jpmorgan.com/jpmpdf/1320748588999.pdf, 5/29/20.

				<b>Bond Yields</b>		Yield Spread				
_			30-Year Treasury Bond	A Rated Public Utility Bond	Baa Rated Public Utility Bond	A Rated Yield LESS 30-Year Bond	Baa Rated LESS 30-Year Bond			
1	Monthly	Sep-2019	2.16	3.37	3.71	1.21	1.55			
	Monthly	Oct-2019	2.19	3.39	3.72	1.20	1.53			
	Monthly	Nov-2019	2.28	3.43	3.76	1.15	1.48			
	Monthly	Dec-2019	2.30	3.40	3.73	1.10	1.43			
	Daily	1/30/20	2.04	3.13	3.45	1.09	1.41			
	Daily	2/27/20	1.79	3.03	3.34	1.24	1.55			
*	Daily	3/31/20	1.35	3.69	4.39	2.34	3.04			
	Daily	4/27/20	1.25	2.98	3.56	1.73	2.31			
	Daily	5/28/20	1.47	3.18	3.54	1.71	2.07			
	Daily	5/28/20	3.54	1.71	2.0					

Table 3

Since the all-time market high for the S&P 500 Index, February 19, 2020, the COVID-19 pandemic and the related large-scale economic shutdown has caused widespread stock market turbulence and has generally resulted in decreased financial asset prices for some sectors of the economy. Nevertheless, asset prices reflected in water utility and wastewater utility market valuations have remained relatively steady as demonstrated by the Comparison Group's market multiples shown in **Table 4** below.<sup>22</sup>

<sup>22</sup> The first six spot dates and the related multiples shown in the market multiples Table were taken from recent Gannett Fleming appraisals filed with the PA PUC.

-	Invest. Capital	ater Utilit Gross PP&E	y Compar Net PP&E	sion Gro Rev.	up Enterpris EBITDA	se Value  EBIT	as a Multipl	e of Population
-	(x)	(x)	(x)	(x)	(x)	(x)	(\$)	(\$)
12/31/2017	2.04	1.20	1.57	6.00	15.07	21.23	\$7,348	\$1,994
4/30/2018	1.94	1.17	1.54	6.11	14.48	20.78	\$7,131	\$1,843
11/30/2018	1.90	1.17	1.55	7.06	16.34	23.99	\$7,538	\$2,120
2/28/2019	2.03	1.20	1.59	7.34	16.48	24.10	\$8,042	\$2,303
6/30/2019	2.25	1.40	1.83	7.88	18.03	26.89	\$8,368	\$2,463
12/31/2019	2.00	1.35	1.76	8.30	20.08	29.37	\$9,631	\$2,879
<b>*</b> 3/31/2020	1.95	1.33	1.73	8.02	21.60	30.43	\$9,216	\$2,677
4/30/2020	1.79	1.17	1.53	7.89	20.48	28.83	\$8,987	\$2,613
5/28/2020	1.83	1.39	1.74	8.06	21.25	31.21	\$9,492	\$2,779

### \* - Valuation date of current appraisal

### Comment:

Valuation date of 12/31/2017 from East Bradford Township A-2018-3001582

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2018-3001582

Valuation date of 04/30/2018 from Exeter Township – A-2018-3004933

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2018-3004933

Valuation date of 11/30/2018 from Cheltenham Township – A-2019-3008491

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2019-3008491

Valuation date of 02/28/2019 from East Norriton – A-2019-3009052

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2019-3009052

Valuation date of 06/30/2019 from Borough of Kane Authority – A-2019-3014248

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2019-3014248

Valuation date of 12/31/2019 from DELCORA – A-2019-3015173

http://www.puc.state.pa.us/about puc/consolidated case view.aspx?Docket=A-2019-3015173

Table 4

Even though most of the US will likely be affected by COVID-19's related economic effects, we believe those effects will vary greatly from place-to-place dependent on the nature of the business sectors which comprise each local economy and their concentration within the local

economy. We do not believe the appraised value of the long-lived Wastewater System assets will be materially impacted by the COVID-19 or its related short-term events. In all likelihood, both the mandatory and voluntary testing, preventative measures and social distancing should impact the spread of the disease and constrain its impact to months while the Wastewater System assets will provide service for decades.

Moreover, the Wastewater System's customer base is not heavily dependent on customers from sectors of the economy providing tourism and travel, employment services, mining/oil and gas (energy), and leisure and hospitality which are likely to be the most impacted by COVID-19's related short-term events. Therefore, even on a short-term basis, the Wastewater System's revenues and cash flows should not be materially impacted on a relative basis.

COMPLIANCE & APPRAISAL CERTIFICATION

# Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

# Fulfillment of Requirements for a Personal Property Appraisal and Report

• State the identity of the client and any intended users, by name or type:

The client is the Borough of Royersford. The intended users of the valuation are the Borough of Royersford, Pennsylvania American Water Company, Inc. and the Pennsylvania Public Utility Commission.

• State the intended use of the appraisal

The intended use of the valuation is to comply with 66 Pa. C.S. Section 1329, Valuation of Acquired Water and Wastewater Systems and conduct a fair market value appraisal of Borough of Royersford's wastewater system assets in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market and income approaches.

• Describe information sufficient to identify the property, real, personal, and intangible, involved in the appraisal, including the physical and economic property characteristics relevant to the assignment.

The Borough of Royersford owns and operates the Wastewater System which consists of approximately 69,990 linear feet of gravity sewer collection mains, two pump stations, about 4,180 linear feet of force mains, the Royersford Wastewater Treatment Plant ("WWTP"), associated infrastructure and appurtenances, and related land and land rights.

The Wastewater System's WWTP was initially constructed in 1935 with major improvements in the 1980s and over the last decade. The WWTP is hydraulically rated for 1.0 million gallons per day ("MGD"), with a loading rating of 0.7 MGD. The 2018 Chapter 94 Report year average influent flow was 0.430 MGD. The WWTP consists of an office/control building, primary and secondary settling tanks, trickling filters, primary recirculation pumps, lab building, secondary recirculation pump station, raw sewage pumps, influent grinder, influent screen unit (upper grinder station), poly aluminum chloride system, flow meter, anaerobic digester, sludge holding tanks, disinfection system (liquid sodium hypochlorite), dechlorination system, emergency generator, and storage building. The liquid biosolids are hauled by an outside contractor to the Pottstown Sewage Treatment Plant for disposal. The overall assessment of the condition of the WWTP is good.

The Wastewater System's two pump stations included the 10th Avenue pump station and the Green Street pump station. The 10th Avenue pump station consists of a wet well, grinder, masonry building, generator, and two pumps. The Green Street pump station consists of a wet well, dry well, two pumps and a generator.

# Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

# Fulfillment of Requirements for a Personal Property Appraisal and Report

The pump stations' building, pumps and electrical systems components are in good condition.

The Wastewater System's 69,990 linear feet of gravity sewer collection main consists of 8-inch, 10-inch, 12-inch and 15-inch clay and PVC pipe. There is approximately 205 linear feet of 15-inch cast iron pipe. There are 259 manholes in the system. The majority of the gravity mains were installed in the mid-1930s. The Wastewater System lined approximately 7,600 linear feet of 8-inch and 10-inch gravity mains, and 1,638 feet of 15-inch gravity mains between 2012 and 2016. The Wastewater System's 4,180 linear feet of force mains consist 680 linear feet of 6-inch cast iron pipe (Green Street pump station) and 3,500 linear feet of 8-Inch cast iron pipe (10th Avenue pump station).

The Wastewater System's has about 27,000 linear feet of laterals which service 1,596 Borough customers. The WWTP also provides wholesale service to a small portion of Limerick Township and Upper Providence Township. The Borough of Royersford's wastewater system assets include sewage collection, transmission and treatment assets, and related land and land rights.

The Borough of Royersford's wastewater system land and land rights include land used for wastewater sewage collection and transmission, about 15 miles of sewers, 2 pump stations, treatment plant and multiple easements and rights-of-way necessary to operate the Wastewater System.

• State the type and definition of value and cite the source of the definition, including whether the opinion of value is in terms of cash or of financing terms equivalent to cash, or based on non-market financing or financing with unusual conditions or incentives

Fair market value is defined as:

"The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts." The International Glossary of Business Valuation Standards

# Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

# Fulfillment of Requirements for a Personal Property Appraisal and Report

# • State the effective date of the appraisal and the date of the report

The effective date of the appraisal is as of March 31, 2020 and the appraisal report date is May 2020.

# • Describe sufficient information to disclose to the client and any other intended users of the appraisal the scope of work used to develop the appraisal

Conduct a fair market value appraisal of the Borough of Royersford's Wastewater System assets in compliance with the Uniform Standards of Professional Appraisal Practices, employing the cost, market and income approaches.

The premise of value is going concern and the assets are valued as a group under the premise that they collectively comprise an ongoing operating business enterprise.

We accepted all information and data provided by the Borough of Royersford as it pertains to this assignment "as is" after a limited review. That is, we neither audited nor verify any data, original cost data, financial records or operating data provided for this assignment.

The appraisal considered all three approaches to value: the cost, income and market. Briefly the scopes of work for each are as follows:

The cost approach utilized the original cost method and replacement cost method. The reproduction cost method was calculated by trending (trended cost method) the asset inventory developed by Pennoni Associates Inc. from its original cost new inventory. The original cost method determined the original cost new measure of the cost of the assets when first constructed. The original cost new inventory was trended using the Handy Whitman Index of Public Utility Construction Costs for the water industry to produce the reproduction cost new and converted to replacement cost new after obsolescence was factored. The calculated accrued depreciation was determined for the original cost new and for the replacement cost new. The calculated accrued depreciation was based on the assets' attained ages, and the service life of the assets. The cost basis of depreciable assets was reduced annually by the accumulated depreciation to reflect the loss in the service value of the assets since being constructed. All land and land rights were valued at original cost.

Income Approach - The income approach utilized the capitalization of earning (cash flow) method and the discounted cash flow method. The capitalization of earning method converted a single base economic income number to a value by

# Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

# Fulfillment of Requirements for a Personal Property Appraisal and Report

dividing it by a capitalization rate. The discounted cash flow method used estimates of future debt free net cash flow and discounted them to arrive at a present value or price of the cash flows. The capitalization rate and the discount rate were developed based on market debt and equity rates at the appraisal date. The discounted cash flow method reflected two types of discounted cash flow analyses, the EBIT and EBITDA terminal value model and a capitalization of terminal value model.

Market Approach - The market approach was developed based on the market multiples method and the selected transaction method. The market multiples method was based on the market price data of publicly traded corporations engaged in the same or a similar line of business as the Wastewater System. The market price data of these comparable publicly traded corporations was used to calculate the market multiples for the comparable publicly traded corporations at the appraisal date. The selected transactions method used certain public information relating to the purchase or sales of businesses involved in the same or a similar business line as the Wastewater System to calculated market multiples at the time of transaction (sale/purchase). The calculated market multiples determined by the market multiples method and the selected transaction method were then multiplied by the corresponding the Wastewater System financial and operating statistic to produce an indicated value for the Wastewater System.

Reconciliation of the Valuation Approaches - The fair market value conclusion was based on reconciliation of each of the three approaches to value and the intended purpose of the appraisal.

- Clearly and conspicuously:
  - State all extraordinary assumptions and hypothetical conditions;

There were no extraordinary assumptions required or hypothetical conditions in this appraisal.

• State that their use might have affected the assignment results

Not applicable.

• Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment

Not applicable.

# Compliance with Uniform Standards of Professional Appraisal Practice (USPAP) 2020-2021

Fulfillment of Requirements for a Personal Property Appraisal and Report

• Describe the information analyzed, the appraisal procedures followed, and the reasoning that supports the analyses, opinions, and conclusions

See scope of work above.

• State the use of the real estate existing as of the date of value and the use of the real estate reflected in the appraisal

The Borough of Royersford's wastewater system land and land rights include land used for wastewater sewage collection and transmission, about 15 miles of sewers, 2 pump stations, treatment plant and multiple easements and rights-of-way necessary to operate the Wastewater System.

The Borough of Royersford Wastewater System's land and land rights were assumed to be used for the operation of the wastewater system for the appraisal.

• State and describe the support and rationale for the appraiser's opinion of the highest and best use of the real estate

All land and land rights were assumed to be used for the operation of the Wastewater System for the appraisal, were valued at original cost, and not at highest and best use of the real estate.

• State and explain any permitted departures from specific requirements of STANDARD 1 and the reason for excluding any of the usual valuation approaches. The appraisal then becomes a limited appraisal - a limited appraisal report must contain a prominent section that clearly identifies the extent of the appraisal process performed and the departures taken

No departures for Standard 1 were made.

• Include a signed certification in accordance with Standards Rule 2-3

See attached for signed certification.

# APPRAISAL CERTIFICATION

# Borough of Royersford, Pennsylvania Borough of Royersford Wastewater System Assets Fair Market Value Appraisal Report As of March 31, 2020

Gannett Fleming Valuation and Rate Consultants, LLC certify that, to the best of its knowledge and belief:

_	The statements of fact contained in this report are true and correct.
	The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
	Gannett Fleming Valuation and Rate Consultants, LLC has not performed an appraisal of the Borough of Royersford Wastewater System prior to this current appraisal.
	Gannett Fleming Valuation and Rate Consultants, LLC, nor its professional staff has any present or prospective interest in the property that is the subject of this report, and has no interest or bias with respect to the parties involved.
	We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
	Our engagement in this assignment is not contingent upon developing or reporting predetermined results.
	Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the

— Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice (2020-2021)

occurrence of a subsequent event directly related to the intended use of this appraisal.

# APPRAISAL CERTIFICATION Borough of Royersford, Pennsylvania Borough of Royersford Wastewater System Assets Fair Market Value Appraisal Report As of March 31, 2020

- The signers of this report have made a personal inspection of the property that is the subject of this report.
- Individuals providing significant appraisal assistance to the person signing this certification include: John J. Spanos, President, Joanna Lappin, Depreciation Analyst and Gregory R. Herbert, Rate Analyst at Gannett Fleming Valuation and Rate Consultants, LLC.

Gannett Fleming Valuation and Rate Consultants, LLC

By,

HAROLD WALKER, III

Manager, Financial Studies

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**EXHIBITS** 

# Borough of Royersford Wastewater System Assets Selected Audited Financial Information

		12-Months Ended I	December 31:	
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Gross property, plant & equipment	6,572,921	6,821,110	6,832,063	6,883,116
Accumulated depreciation	1,843,178	2,004,300	2,170,768	2,337,417
Net property, plant & equipment	4,729,743	4,816,810	4,661,295	4,545,699
Assets	5,162,801	5,031,265	5,002,460	4,813,200
Debt Current	108,781	114,317	172,000	175,000
Debt	3,071,823	2,957,310	2,783,000	2,608,000
Equity	1,935,042	1,900,751	1,942,325	1,919,972
Total Capital	5,115,646	4,972,378	4,897,325	4,702,972
OPERATING REVENUES				
Charges for services	757,161	759,518	797,521	778,908
Other operating income	0	0	0	0
TOTAL OPERATING REVENUES	757,161	759,518	797,521	778,908
Expenses	522,935	524,456	534,843	585,661
Depreciation	145,088	161,122	166,468	166,649
TOTAL OPERATING EXPENSES	668,023	685,578	701,311	752,310
CAPX	108,018	248,189	10,952	51,054
Interest	147,384	109,176	57,457	52,789
Principal	104,011	108,977	116,627	172,000

Source of Information: Audited Financial Statements (2015-2018)

# Borough of Royersford Wastewater System Assets Population, Housing Units, Customer Count, EDUs and Sewage Flows

Royersford Population 2019 To Custom	
Population       5,154       3.2         Housing Units       2,497       3.0         Average Size       2.06	Collection Treatment
<u>Current</u> <u>Customers</u>	
Residential 1,427	
Commercial 158	
Industrial 11	
Total Retail 1,596	
Wholesale Treatment 120	
Total 1,716	
Total EDUs 1.716	
Total EDUs 1,716	
Projected New EDUs	
•	2022
<u>2019</u> <u>2020</u> <u>2021</u> <u>2022</u> New EDUs 1 3 3 1	<u>2023</u> 1
New EDOS 1 3 3 1	1
Annual Daily Average Sewage Flow (MC	<del>D</del> )
2014 2015 2016 2017	2010
<u>2014</u> <u>2015</u> <u>2016</u> <u>2017</u>	<u>2018</u>
WWTP 0.564 0.418 0.324 0.308	0.430
W W 1F 0.304 0.418 0.324 0.308	0.430
Population and Housing Units (2019)	
Total Population	n
Population in Housing per Housing	
Total Population Households Units Vacancy Rate Unit	0
<b>.</b>	

Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Newada New Hampshire New Jersey New Mexico New York North Carolina North Dakota	Popul 2000 4,447,351 626,931 5,130,632 2,673,400 33,871,653 4,302,015 3,405,602 783,600 572,059 15,982,824 8,186,816 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,92,37 6,349,105 9,338,480 4,919,492 2,844,656 5,596,683	2010  4,779,736 710,231 6,392,017 2,915,918 37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	Percentage Change 7.5 13.3 24.6 9.1 10.0 16.9 4.9 14.6 5.2 17.6 6.1 1.3 3.6 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8 4.3 7.0
Alaska Arizona Arizona Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Newada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	2000  4,447,351 626,931 5,130,632 2,673,400 33,871,653 4,302,015 3,405,602 783,600 572,059 15,982,824 8,186,816 1,211,537 1,293,956 1,2419,647 6,080,517 2,926,382 4,468,958 1,274,923 5,296,507 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,349,105 6,596,687	2010  4,779,736 710,231 6,392,017 2,915,918 37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	7.5 13.3 24.6 9.1 10.0 16.9 4.9 14.6 5.2 17.6 18.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Alaska Arizona Arizona Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Newada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	626,931 5,130,632 2,673,440 33,871,653 4,302,015 3,405,602 783,600 572,059 15,928,284 18,186,816 1,211,537 1,233,956 12,419,647 6,080,517 2,926,382 2,658,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,686	710,231 6,392,017 2,915,918 37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	13.3 24.6 9.1 10.0 16.9 4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 4.1 4.2 9.0 3.1 -0.6 7.8 4.3
Alaska Arizona Arizona Arizona Arizona Arizona California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska New Hampshire New Jersey New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	626,931 5,130,632 2,673,440 33,871,653 4,302,015 3,405,602 783,600 572,059 15,928,284 18,186,816 1,211,537 1,233,956 12,419,647 6,080,517 2,926,382 2,658,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,686	710,231 6,392,017 2,915,918 37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	13.3 24.6 9.1 10.0 16.9 4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 4.1 4.2 9.0 3.1 -0.6 7.8 4.3
Arizona Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Missispipi Missouri Montana Nebraska Newada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	5,130,632 2,673,400 33,871,653 4,302,015 3,405,602 783,600 572,059 15,982,824 8,186,816 12,115,37 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 8,844,656,683	6,392,017 2,915,918 37,255,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	24.6 9.1 10.0 16.9 4.9 14.6 5.2 17.6 18.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1
Arkansas California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Horth Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	2,673,400 33,871,653 4,302,015 43,020,502 783,600 572,059 15,982,824 8,186,816 1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 6,349,	2,915,918 37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	9.1 10.0 16.9 4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 4.2 9.0 3.1 -0.6 7.8
California Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska New Hampshire New Jersey New Hexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	33,871,653 4,302,015 3,405,602 783,600 572,059 15,982,824 15,982,824 12,11,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,914,656 5,596,686 5,596,686	37,253,956 5,029,196 3,574,097 897,934 601,723 18,801,31 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	10.0 16.9 4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Colorado Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Oakota Ohio Oklahoma Oregon Pennsylvania	4,302,015 3,405,602 783,600 572,059 15,982,824 8,186,816 12,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	5,029,196 3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	16.9 4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Connecticut Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	3,405,602 783,600 572,059 15,982,824 8,186,816 1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	3,574,097 897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	4.9 14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 6.1, 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Delaware District of Columbia Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Minsouri Montana Nebraska Newada New Hampshire New Jersey New Horth Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	783,600 572,059 15,982,824 8,186,816 1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,686	897,934 601,723 18,801,310 9,687,653 1,360,301 1,567,532 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	14.6 5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
District of Columbia Florida Georgia Georgia Hawaii Idaho Illilinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Newada New Hampshire New Jersey New Hexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	572,059 15,982,824 8,186,816 12,211,537 1,293,956 12,419,647 6,080,517 2,926,382 4,042,285 4,042,285 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	601,723 18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	5.2 17.6 18.3 12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	15,982,824 8,186,816 1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	18,801,310 9,687,653 1,360,301 1,567,582 12,830,632 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	17.6 18.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	8,186,816 1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	9,687,653 1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	18.3 12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,211,537 1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	1,360,301 1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	12.3 21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Idaho Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Mississippi Mostana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,293,956 12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	1,567,582 12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	21.1 3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Illinois Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	12,419,647 6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	12,830,632 6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	3.3 6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8
Indiana Iowa Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	6,080,517 2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	6,483,802 3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	6.6 4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8 4.3
Iowa Kansas Kansas Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	2,926,382 2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	3,046,355 2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	4.1 6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8 4.3
Kansas Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missisppi Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	2,688,824 4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	2,853,118 4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	6.1 7.3 1.4 4.2 9.0 3.1 -0.6 7.8 4.3
Kentucky Louisiana Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	4,042,285 4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	4,339,367 4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	7.3 1.4 4.2 9.0 3.1 -0.6 7.8 4.3
Louisiana Maine Maine Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	4,468,958 1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	4,533,372 1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	1.4 4.2 9.0 3.1 -0.6 7.8 4.3
Maine Maryland Massachusetts Michigan Minnesota Mississippi Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,274,923 5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	1,328,361 5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	4.2 9.0 3.1 -0.6 7.8 4.3
Maryland Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Dhio Oklahoma Oregon Pennsylvania	5,296,507 6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	5,773,552 6,547,629 9,883,640 5,303,925 2,967,297	9.0 3.1 -0.6 7.8 4.3
Massachusetts Michigan Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Dhio Oklahoma Oregon Pennsylvania	6,349,105 9,938,480 4,919,492 2,844,656 5,596,683	6,547,629 9,883,640 5,303,925 2,967,297	3.1 -0.6 7.8 4.3
Michigan Minnesota Mississippi Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	9,938,480 4,919,492 2,844,656 5,596,683	9,883,640 5,303,925 2,967,297	-0.6 7.8 4.3
Minnesota Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	4,919,492 2,844,656 5,596,683	5,303,925 2,967,297	7.8 4.3
Mississippi Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	2,844,656 5,596,683	2,967,297	4.3
Missouri Montana Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Dhio Oklahoma Oregon	5,596,683		
Nebraska Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania		5,988,927	7.0
Nevada New Hampshire New Jersey New Mexico New York North Carolina North Dakota Dhio Oklahoma Oregon Pennsylvania		989,415	9.7
New Hampshire New Jersey New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,711,265	1,826,341	6.7
New Hampshire New Jersey New Mexico New York North Carolina North Dakota Dhio Oklahoma Oregon Pennsylvania	1,998,257	2,700,551	35.1
New Mexico New York North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,235,786	1,316,470	6.5
New York North Carolina North Dakota Dhio Oklahoma Oregon Pennsylvania	8,414,347	8,791,894	4.5
North Carolina North Dakota Ohio Oklahoma Oregon Pennsylvania	1,819,046	2,059,179	13.2
North Dakota Ohio Oklahoma Oregon Pennsylvania	18,976,821	19,378,102	2.1
Ohio Oklahoma Oregon Pennsylvania	8,046,485	9,535,483	18.5
Oklahoma Oregon Pennsylvania	642,200	672,591	4.7
Oregon Pennsylvania	11,353,145	11,536,504	1.6
Pennsylvania	3,450,652	3,751,351	8.7
	3,421,436	3,831,074	12.0
Rhode Island	12,281,054	12,702,379	3.4
	1,048,319	1,052,567	0.4
South Carolina	4,011,816	4,625,364	15.3
South Dakota	754,844	814,180	7.9
Гennessee	5,689,267	6,346,105	11.5
Texas	20,851,790	25,145,561	20.6
Utah	2,233,198	2,763,885	23.8
Vermont	608,827	625,741	2.8
Virginia	7,079,030	8,001,024	13.0
Washington	5,894,141	6,724,540	14.1
West Virginia		- /- /	2.5
Wisconsin	1,808,350	1,852,994	
Wyoming	1,808,350 5,363,715 493,782	- /- /	6.0 14.1

Source: U.S. Census Bureau, Population Division

# Appendix A-5.2 (Gannett)

# EXHIBIT 3 Page 1 of 3

	Popula	tion	Percentage			
Geographic Area	2000	2010	Change	Municipal Growth Rank		
Pennsylvania	12,281,054	12,702,379	3.4%	-		
Montgomery County	750,097	799,874	6.6%	-		
Royersford borough	4,246	4,752	11.9%	411 out of 2,572		

EXHIBIT 3 Page 2 of 3

			I	Population				Percentage Change						
•	Estimate 2015	Forecast 2020	Forecast 2025	Forecast 2030	Forecast 2035	Forecast 2040	Forecast 2045	2015 to 2020	2020 to 2025	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2015 to 2045
					•									•
Bucks County	627,367	640,495	654,792	669,299	681,273	691,111	699,498	2.1%	2.2%	2.2%	1.8%	1.4%	1.2%	
Chester County	515,939	543,702	571,641	599,932	624,832	645,562	662,283	5.4%	5.1%	4.9%	4.2%	3.3%	2.6%	
Delaware County	563,894	568,337	572,758	577,248	581,136	584,329	587,037	0.8%	0.8%	0.8%	0.7%	0.5%	0.5%	
Montgomery County	819,264	840,934	863,327	884,387	903,114	918,918	932,820	2.6%	2.7% 1.4%	2.4%	2.1%	1.7%	1.5%	
Philadelphia County	1,567,443	1,594,787	1,616,816	1,643,971	1,667,290	1,683,402	1,696,133	1.7%	1.4%	1.7%	1.4%	1.0%	0.8%	8.2
Subtotal - Five														
Pennsylvania Counties	4,093,907	4,188,255	4,279,334	4,374,837	4,457,645	4,523,322	4,577,771	2.3%	2.2%	2.2%	1.9%	1.5%	1.2%	11.8
Burlington County	450,226	459,344	468,428	475,978	482,560	488,026	492,709	2.0%	2.0%	1.6%	1.4%	1.1%	1.0%	9.4
Camden County	510,923	514,006	517,073	520,189	522,886	525,101	526,997	0.6%	0.6%	0.6%	0.5%	0.4%	0.4%	
Gloucester County	291,479	307,766	323,969	340,425	354,677	366,383	376,308	5.6%	5.3%	5.1%	4.2%	3.3%	2.7%	29.19
Mercer County	371,398	377,328	383,227	389,219	394,407	398,669	402,283	1.6%	1.6%	1.6%	1.3%	1.1%	0.9%	
Subtotal - Four New														
Jersey Counties	1,624,026	1,658,444	1,692,697	1,725,811	1,754,530	1,778,179	1,798,297	2.1%	2.1%	2.0%	1.7%	1.3%	1.1%	10.79
Total - Nine DVRPC														
Counties	5,717,933	5,846,699	5,972,031	6,100,648	6,212,175	6,301,501	6,376,068	2.3%	2.1%	2.2%	1.8%	1.4%	1.2%	11.5
Royersford Borough	4,771	4,893	5,014	5,136	5,243	5,330	5,404	2.6%	2.5%	2.4%	2.1%	1.7%	1.4%	13.3

EXHIBIT 3 Page 3 of 3

TABLE 3.4 Forecasted Employment by County and Municipality, 2015-2045														
Γ			Е	mployment			1	Percentage Change						
	Estimate 2015	Forecast 2020	Forecast 2025	Forecast 2030	Forecast 2035	Forecast 2040	Forecast 2045	2015 to 2020	2020 to 2025	2025 to 2030	2030 to 2035	2035 to 2040	2040 to 2045	2015 to 2045
Bucks County	322,731	329,645	337,203	344,859	351,310	356,671	361,124	2.1%	2.3%	2.3%	1.9%	1.5%	1.2%	11.9
Chester County Delaware County	309,605 268,054	326,320 270,167	343,050 272,269	359,774 274,401	374,967 276,248	387,391 277,763	397,405 279,050	5.4% 0.8%	5.1% 0.8%	4.9% 0.8%	4.2% 0.7%	3.3% 0.5%	2.6% 0.5%	28.49 4.19
Montgomery County Philadelphia County	582,443 772,847	598,434 786,308	614,469 797,156	629,563 810,574	642,996 822,002	654,966 829,937	664,385 836,825	2.7% 1.7%	2.7% 1.4%	2.5% 1.7%	2.1% 1.4%	1.9% 1.0%	1.4% 0.8%	14.19 8.39
Subtotal - Five														
Pennsylvania Counties	2,255,680	2,310,874	2,364,147	2,419,171	2,467,523	2,506,728	2,538,789	2.4%	2.3%	2.3%	2.0%	1.6%	1.3%	12.69
Burlington County	241,298	246,351	251,368	255,562	258,363	261,195	263,622	2.1%	2.0%	1.7%	1.1%	1.1%	0.9%	9.39
Camden County Gloucester County	263,582 121,382	265,169 128,161	266,753 134,902	268,359 141,752	269,750 147,682	270,892 152,554	271,869 156,686	0.6% 5.6%	0.6% 5.3%	0.6% 5.1%	0.5% 4.2%	0.4%	0.4% 2.7%	3.19 29.19
Mercer County	286,295	290,864	295,408	300,025	304,021	307,302	310,084	1.6%	1.6%	1.6%	1.3%	1.1%	0.9%	8.39
Subtotal - Four New Jersey Counties	912,557	930,545	948,431	965,698	979,816	991,943	1,002,261	2.0%	1.9%	1.8%	1.5%	1.2%	1.0%	9.89
_														
Total - Nine DVRPC Counties	3,168,237	3,241,419	3,312,578	3,384,869	3,447,339	3,498,671	3,541,050	2.3%	2.2%	2.2%	1.8%	1.5%	1.2%	11.89
Royersford Borough	1,393	1,419	1,443	1,466	1,489	1,511	1,518	1.9%	1.7%	1.6%	1.6%	1.5%	0.5%	9.0

Comparison of Credit Market Financial Risk Metrics For Borough of Royersford Wastewater System Assets And the Comparable Group 2016 - 2018 (1)

·				 		
	Borough o	f Royersford V	Vastewater			
	System Assets			Cc	omparable Gro	up
	2018	2017	2016	2018	2017	2016
Debt Service Coverage	0.9	1.5	1.1	3.7	3.3	3.6
Pre-Tax Interest Coverage - Including AFC(2)(x)	0.5	1.7	0.7	3.6	4.4	4.3
Post-Tax Interest Coverage - Including AFC(2)(x)	0.5	1.7	0.7	3.1	3.4	3.2
GCF / Interest Coverage(3)(x)	3.7	4.6	2.2	4.9	5.4	5.2
GCF / Tot. Debt(4)(%)	5.0	6.9	4.1	18.3	23.2	22.9
GCF / Construction(5)(%)	275.1	1873.8	50.7	62.2	82.6	94.2

Notes: (1) Average of the achieved results for each individual company based upon the financials as originally reported.

- (2) Represents the number of times available earnings, including AFC, cover all interest charges.
- (3) GCF or gross cash flow (sum of net income, depreciation, amortization, net deferred income taxes and investment tax credits, less AFC), plus interest charges, divided by interest charges.
- (4) GCF (see note 3) as a percentage of total debt.
- (5) The percent of GCF (see note 3) which cover gross construction expenditures.

Source: 2016-18 Annual Reports S&P Research Insight

EXHIBIT 1

Borough of Royersford Wastewater System Assets
Illustrating the Impact of Size on Risk and Retun
Through Common Stock Returns

	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>	<u>J</u>
		_		=	=	-	<u> =</u>		=	<u>~</u>
		Average	Standard						Beta A	Adjusted
	Market	Quartile	Deviation	Change in	Largest		Comparison		Quartile	Change in
Marke	Quartile	Premium	of	Quartile	Market Value	Quartile	Group	Beta	Size	Quartile
Quartil	e Name	<u>1926-18</u>	Return	<u>Premium</u>	in the Quartile	<u>Beta</u>	<u>Beta</u>	Ratio	<u>Premium</u>	<u>Premium</u>
		(%)	(%)	(%)	(Mill \$)				(%)	(%)
(Largest	Stocks)									
1	Large-Cap	0.00	19.9		1,073,390	1.00	0.65	65%	0.00	
2	Mid-Cap	0.89	24.3	0.89	13,456	1.12	0.65	58%	0.52	0.52
3	Low-Cap	1.60	28.5	0.71	2,993	1.22	0.65	53%	0.85	0.34
4	Mico-Cap	3.40	38.5	1.80	728	1.35	0.65	48%	1.64	0.78
(Smalle:	st Stocks)									

	3/31/2020	Market	
	Market	Quartile	Market
	<u>Value</u>	<u>Name</u>	<u>Quartile</u>
	(Mill \$)		
Comparable Group			
American States Water Co	3,013	Mid-Cap	2
American Water Works Co Inc	21,637	Large-Cap	1
California Water Service Gp	345	Mico-Cap	4
Essential Utilities, Inc.	2,442	Low-Cap	3
Middlesex Water Co	9,972	Mid-Cap	2
Middlesex Water Co	1,048	Low-Cap	3
SJW Corp	1,646	Low-Cap	3
York Water Co	566	Mico-Cap	4
Median	2,044	Low-Cap	3

EXHIBIT 6 Page 1 of 5

	(Curre	ent Know Statistic	cs)
	Gross Property, Plant & Equipment (Millions	Net Property, Plant & Equipment of \$)	Percentage of Property, Plant & Equipment Not Depreciated
Borough of Royersford			
Wastewater System Assets	\$7.666	\$5.453	71%
Comparable Group			
American States Water Co	\$1,980.305	\$1,437.042	73%
American Water Works Company	24,044.000	18,335.000	76%
Artesian Resources Corp	672.391	535.013	80%
California Water Service Group	3,540.033	2,409.873	68%
Essential Utilities, Inc.	8,214.803	6,358.657	77%
Middlesex Water Co	893.664	722.044	81%
SJW Group	3,192.780	2,230.343	70%
York Water Company (The)	399.269	313.993	79%
Median			77%

				1
	(As	s of 3/31/2020)	I	
	Net Property, Plant & Equipment	Investor's Capital	Percentage of Property, Plant & Equipment Net of Contributions	2019 Percentage of Known "Cost Free" Capital
	(Millions	-	•	•
Comparable Group				
American States Water Co	\$1,437.042	\$1,101.458	77%	23%
American Water Works Co Inc	18,335.000	15,678.000	86%	19%
Artesian Resources -CL A	535.013	314.114	59%	39%
California Water Service Gp	2,409.873	1,778.008	74%	27%
Essential Utilities, Inc.	6,358.657	6,978.773	110%	25%
Middlesex Water Co	722.044	589.563	82%	25%
SJW Corp	2,230.343	2,313.062	104%	26%
York Water Co	313.993	237.467	76%	28%
Median			79%	26%

EXHIBIT 6 Page 2 of 5

		TABLE 6.3	Capital Expend	itures Analysis				
	PP&E-Total Net					Capital Exp	enditures	
<del> </del>	2018	2017	2016	2015	2018	2017	2016	2015
<u> </u>	2010	(Millions		2013	2010	(Million		2013
Borough of Royersford								
Wastewater System Assets	\$4.546	\$4.661	\$4.817	\$4.730	\$0.051	\$0.011	\$0.248	\$0.108
Comparable Group								
American States Water Co	\$1,296.310	\$1,204.992	\$1,150.926	\$1,060.794	\$126.561	\$113.126	\$129.867	\$87.323
American Water Works Co Inc	16,087.000	14,970.000	13,774.000	12,812.000	1,586.000	1,434.000	1,311.000	1,160.000
Artesian Resources -CL A	502.527	464.384	429.383	409.562	49.053	41.094	28.251	20.694
California Water Service Gp	2,220.873	2,036.971	1,847.460	1,689.252	271.707	259.194	228.938	176.833
Essential Utilities, Inc.	5,930.326	5,399.860	5,001.615	4,688.925	495.737	478.089	382.996	364.689
Middlesex Water Co	618.487	557.240	517.776	481.870	72.094	50.301	47.375	25.773
SJW Corp	1,372.830	1,284.345	1,196.822	1,098.247	144.427	149.055	142.220	106.774
York Water Co	299.871	289.524	271.652	262.189	16.882	24.602	13.158	13.844
ſ	Capital Expenditures / PP&E-Total Net							
	2018	2017	2016	2015				
Borough of Royersford								
Wastewater System Assets	1%	0%	5%	2%				
Comparable Group								
American States Water Co	10%	9%	11%	8%				
American Water Works Co Inc	10%	10%	10%	9%				
Artesian Resources -CL A	10%	9%	7%	5%				
California Water Service Gp	12%	13%	12%	10%				
Essential Utilities, Inc.	8%	9%	8%	8%				
Middlesex Water Co	12%	9%	9%	5%				
SJW Corp	11%	12%	12%	10%				
York Water Co	6%	8%	5%	5%				
Median	10%	9%	9%	8%				

EXHIBIT 6 Page 3 of 5

	Revenues				EBITDA				
	2018	2017	2016	2015	2018	2017	2016	2015	
		(Millions o	of \$)		(Millions of \$)				
Borough of Royersford									
Wastewater System Assets	\$0.779	\$0.798	\$0.760	\$0.757	\$0.193	\$0.263	\$0.235	\$0.234	
•	• • • • • • • • • • • • • • • • • • • •	*****	• • • • • • • • • • • • • • • • • • • •	*****	**	*	**	*	
Comparable Group									
American States Water Co	\$436.816	\$440.603	\$436.087	\$458.641	\$141.323	\$157.789	\$153.566	\$160.522	
American Water Works Co Inc	3,440.000	3,357.000	3,302.000	3,159.000	1,306.476	1,154.957	1,102.741	917.849	
Artesian Resources -CL A	80.411	82.235	79.089	77.024	433.284	387.423	380.137	340.460	
California Water Service Gp	698.196	666.890	609.370	588.368	30.401	25.800	26.382	25.061	
Essential Utilities, Inc.	838.091	809.525	819.875	814.204	147.867	140.577	127.710	122.709	
Middlesex Water Co	138.077	130.775	132.906	126.025	38.056	33.947	35.841	28.720	
SJW Corp	397.699	389.225	339.706	305.082	86.302	83.532	68.003	63.335	
York Water Co	48.437	48.589	47.584	47.089	25.743	24.780	24.359	21.800	
	_								
		EBIT							
	2018	2017	2016	2015					
		(Millions o	of \$)						
Borough of Royersford									
Wastewater System Assets	\$0.027	\$0.096	\$0.074	\$0.089					
Comparable Group									
American States Water Co	\$100.898	\$118.758	\$114.716	\$118.489					
American Water Works Co Inc	1,139.000	1,222.000	1,145.000	1,075.000					
Artesian Resources -CL A	23.946	26.895	27.150	25.366					
California Water Service Gp	129.129	123.551	100.998	95.681					
Essential Utilities, Inc.	397.141	328.967	325.585	321.100					
Middlesex Water Co	37.142	38.620	40.632	35.840					
SJW Corp	92.050	98.079	93.116	79.960					
York Water Co	22.517	22.473	22.888	22.661					

EXHIBIT 6 Page 4 of 5

		TABLE 6.4 (	Growth Rate Ar	alyses			
Г	]	Revenue Growth			Е	BITDA Growt	h
	2018	2017	2016		2018	2017	201
Borough of Royersford							
Wastewater System Assets	-2.4%	5.0%	0.4%		-26.6%	11.9%	0.4
Comparable Group							
American States Water Co	-0.9%	1.0%	-4.9%		-10.4%	2.7%	-4.3
American Water Works Co Inc	2.5%	1.7%	4.5%		13.1%	4.7%	20.1
Artesian Resources -CL A	-2.2%	4.0%	2.7%		11.8%	1.9%	11.7
California Water Service Gp	4.7%	9.4%	3.6%		17.8%	-2.2%	5.39
Essential Utilities, Inc.	3.5%	-1.3%	0.7%		5.2%	10.1%	4.19
Middlesex Water Co	5.6%	-1.6%	5.5%		12.1%	-5.3%	24.8
SJW Corp	2.2%	14.6%	11.3%		3.3%	22.8%	7.49
York Water Co	-0.3%	2.1%	1.1%		3.9%	1.7%	11.7
Median	2.4%	1.9%	3.2%		8.5%	2.3%	9.6
Г		EBIT Growth					
	2018	2017	2016				
Borough of Royersford							
Wastewater System Assets	-71.9%	29.7%	-16.9%				
Comparable Group							
American States Water Co	-15.0%	3.5%	-3.2%				
American Water Works Co Inc	-6.8%	6.7%	6.5%				
Artesian Resources -CL A	-11.0%	-0.9%	7.0%				
California Water Service Gp	4.5%	22.3%	5.6%				
Essential Utilities, Inc.	20.7%	1.0%	1.4%				
Middlesex Water Co	-3.8%	-5.0%	13.4%				
SJW Corp	-6.1%	5.3%	16.5%				
York Water Co	0.2%	-1.8%	1.0%				
Median	-5.0%	2.3%	6.1%				

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Borough of Royersford Wastewater System Assets
Property Plant & Equipment Analysis
Capital Expenditures Analysis
Growth Rate Analyses
Profit Margin Analyses

TABLE (	5.5 Profit Margi	n Analyses	
Г	EBI	ΓDA / Revenue - Ma	rgin
	2018	2017	2016
Borough of Royersford			
Wastewater System Assets	24.8%	33.0%	30.9%
Comparable Group			
American States Water Co	32.4%	35.8%	35.2%
American Water Works Co Inc	38.0%	34.4%	33.4%
Artesian Resources -CL A	538.8%	471.1%	480.6%
California Water Service Gp	4.4%	3.9%	4.3%
Essential Utilities, Inc.	17.6%	17.4%	15.6%
Middlesex Water Co	27.6%	26.0%	27.0%
SJW Corp	21.7%	21.5%	20.0%
York Water Co	53.1%	51.0%	51.2%
Median	30.0%	30.2%	30.2%
_	ED	IT / Revenue - Marg	in
	2018	2017	2016
Borough of Royersford			
Wastewater System Assets	3.5%	12.0%	9.7%
Comparable Group			
American States Water Co	23.1%	27.0%	26.3%
American Water Works Co Inc	33.1%	36.4%	34.7%
Artesian Resources -CL A	29.8%	32.7%	34.3%
California Water Service Gp	18.5%	18.5%	16.6%
Essential Utilities, Inc.	47.4%	40.6%	39.7%
Middlesex Water Co	26.9%	29.5%	30.6%
SJW Corp	23.1%	25.2%	27.4%
York Water Co	46.5%	46.3%	48.1%
Median	28.3%	31.1%	32.5%

Source: S&P Capital IQ EXHIBIT 1

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### BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

### SUMMARY OF ORIGINAL COST AND ACCRUED DEPRECIATION OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	ORIGINAL COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)
353.20	LAND AND LAND RIGHTS - COLLECTION	13.00	
353.30	LAND AND LAND RIGHTS - PUMPING	39.00	
353.40	LAND AND LAND RIGHTS - TREATMENT	3,000.00	
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	249,437.00	94,645
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1,842,624.00	638,620
355.00	POWER GENERATION EQUIPMENT	371,088.00	146,390
360.21	COLLECTION SEWERS - FORCE - MAINS	31,522.00	24,670
361.21	COLLECTION SEWERS - GRAVITY - MAINS	322,258.65	250,474
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	742,945.00	79,967
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	42,549.03	29,579
363.20	SERVICES TO CUSTOMERS	32,179.99	24,342
364.00	FLOW MEASURING DEVICES	17,927.00	5,163
371.40	PUMPING EQUIPMENT	175,929.00	29,570
380.40	TREATMENT AND DISPOSAL EQUIPMENT	3,822,381.00	886,019
390.70	EQUIPMENT - GENERAL PLANT	7,325.00	2,320
396.70	COMMUNICATION EQUIPMENT	5,275.00	1,670
	TOTAL COMPANY	7,666,492.67	2,213,429

EXHIBIT 7 Page 2 of 3

### BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

### SUMMARY OF ANALYSIS OF ORIGINAL COST OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	ORIGINAL COST
(1)	(2)	(3)
353.20	LAND AND LAND RIGHTS - COLLECTION	13.00
353.30	LAND AND LAND RIGHTS - PUMPING	39.00
353.40	LAND AND LAND RIGHTS - TREATMENT	3,000.00
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	249,437.00
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1,842,624.00
355.00	POWER GENERATION EQUIPMENT	371,088.00
360.21	COLLECTION SEWERS - FORCE - MAINS	31,522.00
361.21	COLLECTION SEWERS - GRAVITY - MAINS	322,258.65
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	742,945.00
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	42,549.03
363.20	SERVICES TO CUSTOMERS	32,179.99
364.00	FLOW MEASURING DEVICES	17,927.00
371.40	PUMPING EQUIPMENT	175,929.00
380.40	TREATMENT AND DISPOSAL EQUIPMENT	3,822,381.00
390.70	EQUIPMENT - GENERAL PLANT	7,325.00
396.70	COMMUNICATION EQUIPMENT	5,275.00
	TOTAL COMPANY	7,666,492.67

EXHIBIT 7

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#### **BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS**

#### SUMMARY OF SERVICE LIFE ESTIMATES AND CALCULATED ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	SURVIVOR CURVE	ORIGINAL COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)	(5)
353.20	LAND AND LAND RIGHTS - COLLECTION	NONDEPRECIABLE	13.00	
353.30	LAND AND LAND RIGHTS - PUMPING	NONDEPRECIABLE	39.00	
353.40	LAND AND LAND RIGHTS - TREATMENT	NONDEPRECIABLE	3,000.00	
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	65-R3	249,437.00	94,645
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	70-R2.5	1,842,624.00	638,620
355.00	POWER GENERATION EQUIPMENT	30-S2	371,088.00	146,390
360.21	COLLECTION SEWERS - FORCE - MAINS	70-R2.5	31,522.00	24,670
361.21	COLLECTION SEWERS - GRAVITY - MAINS	70-R2.5	322,258.65	250,474
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	50-R2.5	742,945.00	79,967
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	65-R3	42,549.03	29,579
363.20	SERVICES TO CUSTOMERS	60-R2.5	32,179.99	24,342
364.00	FLOW MEASURING DEVICES	30-L3	17,927.00	5,163
371.40	PUMPING EQUIPMENT	40-R1.5	175,929.00	29,570
380.40	TREATMENT AND DISPOSAL EQUIPMENT	45-S0.5	3,822,381.00	886,019
390.70	EQUIPMENT - GENERAL PLANT	15-SQ	7,325.00	2,320
396.70	COMMUNICATION EQUIPMENT	15-SQ	5,275.00	1,670
	TOTAL COMPANY		7,666,492.67	2,213,429

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.20 LAND AND LAND RIGHTS - COLLECTION

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR	ORIGINAL COST	AVG. LIFE	RATE	ACCRUAL AMOUNT	EXP.	FACTOR	DEPREC
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NONDEPR	ECIABLE						
1937	3.00						
1961	10.00						
	13.00						

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.30 LAND AND LAND RIGHTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNU	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

NONDEPRECIABLE

2000 39.00

39.00

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.40 LAND AND LAND RIGHTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNUA	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

NONDEPRECIABLE

1935 3,000.00

3,000.00

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - PUMPING

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE IOWA VAGE PERCENT						
1935	6,542.00	65.00	1.54	100.75	6.27	0.9035	5,911
1958	25,335.00	65.00	1.54	390.16	14.72	0.7735	19,598
1988	140.00	65.00	1.54	2.16	35.59	0.4525	63
1989	64,986.00	65.00	1.54	1,000.78	36.43	0.4395	28,564
1990	25,978.00	65.00	1.54	400.06	37.28	0.4265	11,079
2000	91,694.00	65.00	1.54	1,412.09	46.11	0.2906	26,648
2011	6,691.00	65.00	1.54	103.04	56.46	0.1314	879
2012	15,071.00	65.00	1.54	232.09	57.43	0.1165	1,755
2019	13,000.00	65.00	1.54	200.20	64.26	0.0114	148
	249,437.00			3,841.33			94,645

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TREATMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	OR CURVE IOWA						
1935	225,721.00	70.00	1.43	3,227.81	11.24	0.8394	189,477
1986	22,410.00	70.00	1.43	320.46	40.23	0.4253	9,531
1987	550.00	70.00	1.43	7.86	41.03	0.4139	228
1993	62,901.00	70.00	1.43	899.48	45.95	0.3436	21,611
1998	1,462,008.00	70.00	1.43	20,906.71	50.21	0.2827	413,324
2014	3,850.00	70.00	1.43	55.06	64.61	0.0770	296
2015	65,184.00	70.00	1.43	932.13	65.54	0.0637	4,153
	1,842,624.00			26,349.51			638,620

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

	ORIGINAL	AVG.		ACCRUAL			DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE IOWA	30-S2					
NET SAL	VAGE PERCENT	0					
2000	45,847.00	30.00	3.33	1,526.71	12.74	0.5753	26,377
2008	303,849.00	30.00	3.33	10,118.17	18.69	0.3770	114,551
	<b>,</b>						•
2012	21,392.00	30.00	3.33	712.35	22.34	0.2553	5,462
	371,088.00			12,357.23			146,390

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 360.21 COLLECTION SEWERS - FORCE - MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE IOWA AGE PERCENT						
1935 1958	18,585.00 12,937.00	70.00 70.00	1.43 1.43	265.77 185.00	11.24 20.93	0.8394 0.7010	15,601 9,069
	31,522.00			450.77			24,670

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.21 COLLECTION SEWERS - GRAVITY - MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE IOWA VAGE PERCENT						
1935	174,707.48	70.00	1.43	2,498.32	11.24	0.8394	146,655
1936	105,020.54	70.00	1.43	1,501.79	11.54	0.8351	87,707
1955	1,136.00	70.00	1.43	16.24	19.31	0.7241	823
1972	3,227.92	70.00	1.43	46.16	29.76	0.5749	1,856
1990	9,984.07	70.00	1.43	142.77	43.46	0.3791	3,785
1992	15,462.64	70.00	1.43	221.12	45.11	0.3556	5,498
1994	7,173.00	70.00	1.43	102.57	46.79	0.3316	2,378
1995	5,547.00	70.00	1.43	79.32	47.64	0.3194	1,772
	322,258.65			4,608.29			250,474

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.22 COLLECTION SEWERS - GRAVITY - MAINS RELINING

## CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE IOWA	50-R2.5 0					
2013 2014 2015	191,498.00 369,468.00 181,979.00	50.00 50.00 50.00	2.00 2.00 2.00	3,829.96 7,389.36 3,639.58	43.71 44.63 45.55	0.1258 0.1074 0.0890	24,090 39,681 16,196
	742,945.00			14,858.90			79,967

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.23 COLLECTION SEWERS - GRAVITY - MANHOLES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNUA	L ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE IOWA	65-R3					
NET SALV	AGE PERCENT	0					
1935	14,993.00	65.00	1.54	230.89	6.27	0.9035	13,547
1936	9,048.00	65.00	1.54	139.34	6.53	0.8995	8,139
1955	295.00	65.00	1.54	4.54	13.23	0.7965	235
1972	782.17	65.00	1.54	12.05	23.28	0.6419	502
1985	1,870.00	65.00	1.54	28.80	33.12	0.4905	917
1990	4,222.74	65.00	1.54	65.03	37.28	0.4265	1,801
1992	8,897.02	65.00	1.54	137.01	38.99	0.4002	3,560
1995	2,441.10	65.00	1.54	37.59	41.61	0.3599	878
	42,549.03			655.25			29,579

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 363.20 SERVICES TO CUSTOMERS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVOR							
NET SALV	AGE PERCENT	0					
1935	14,754.40	60.00	1.67	246.40	6.55	0.8908	13,144
1936	8,919.13	60.00	1.67	148.95	6.78	0.8870	7,911
1972	3,131.85	60.00	1.67	52.30	21.01	0.6498	2,035
1990	2,074.61	60.00	1.67	34.65	33.83	0.4362	905
2013	3,300.00	60.00	1.67	55.11	53.69	0.1052	347
	32,179.99			537.41			24,342

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 364.00 FLOW MEASURING DEVICES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE IOWA AGE PERCENT						
2011	17,927.00	30.00	3.33	596.97	21.36	0.2880	5,163
	17,927.00			596.97			5,163

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 371.40 PUMPING EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE IOWA VAGE PERCENT						
2005 2010 2018	9,925.00 131,000.00 35,004.00	40.00 40.00 40.00	2.50 2.50 2.50	248.12 3,275.00 875.10	28.46 32.23 38.56	0.2885 0.1943 0.0360	2,863 25,447 1,260
	175,929.00			4,398.22			29,570

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 380.40 TREATMENT AND DISPOSAL EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIV							
NET SA	ALVAGE PERCENT	0					
1951	354,456.00	45.00	2.22	7,868.92	7.25	0.8389	297,350
2006	1,500.00	45.00	2.22	33.30	33.34	0.2591	389
2007	15,000.00	45.00	2.22	333.00	34.08	0.2427	3,640
2010	3,031,371.00	45.00	2.22	67,296.44	36.38	0.1916	580,689
2011	8,993.00	45.00	2.22	199.64	37.18	0.1738	1,563
2014	3,850.00	45.00	2.22	85.47	39.68	0.1182	455
2016	11,091.00	45.00	2.22	246.22	41.45	0.0789	875
2020	396,120.00	45.00	2.22	8,793.86	44.88	0.0027	1,058
	3,822,381.00			84,856.85			886,019

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 390.70 EQUIPMENT - GENERAL PLANT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE 15-9 VAGE PERCENT.	~					
2015	7,325.00	15.00	6.67	488.58	10.25	0.3167	2,320
	7,325.00			488.58			2,320

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 396.70 COMMUNICATION EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO ORIGINAL COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE 15-9 AGE PERCENT	-					
2015	5,275.00	15.00	6.67	351.84	10.25	0.3167	1,670
	5,275.00			351.84			1,670

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### BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

### SUMMARY OF REPLACEMENT COST AND ACCRUED DEPRECIATION OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	REPLACEMENT COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)
353.20	LAND AND LAND RIGHTS - COLLECTION	13.00	
353.30	LAND AND LAND RIGHTS - PUMPING	39.00	
353.40	LAND AND LAND RIGHTS - TREATMENT	3,000.00	
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,115,943.07	704,829
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	13,450,848.48	9,405,215
355.00	POWER GENERATION EQUIPMENT	769,838.10	308,876
360.21	COLLECTION SEWERS - FORCE - MAINS	977,576.86	797,128
361.21	COLLECTION SEWERS - GRAVITY - MAINS	11,698,064.17	9,743,000
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	846,256.88	91,302
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1,084,046.01	952,529
363.20	SERVICES TO CUSTOMERS	1,277,071.98	1,125,070
364.00	FLOW MEASURING DEVICES	20,954.25	6,035
371.40	PUMPING EQUIPMENT	311,229.91	56,352
380.40	TREATMENT AND DISPOSAL EQUIPMENT	11,918,695.22	7,037,700
390.70	EQUIPMENT - GENERAL PLANT	7,582.00	2,401
396.70	COMMUNICATION EQUIPMENT	5,119.15	1,621
	TOTAL COMPANY	43,486,278.08	30,232,058

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### BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

## SUMMARY OF ANALYSIS OF REPLACEMENT COST OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	REPLACEMENT COST
(1)	(2)	(3)
353.20	LAND AND LAND RIGHTS - COLLECTION	13.00
353.30	LAND AND LAND RIGHTS - PUMPING	39.00
353.40	LAND AND LAND RIGHTS - TREATMENT	3,000.00
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,115,943.07
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	13,450,848.48
355.00	POWER GENERATION EQUIPMENT	769,838.10
360.21	COLLECTION SEWERS - FORCE - MAINS	977,576.86
361.21	COLLECTION SEWERS - GRAVITY - MAINS	11,698,064.17
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	846,256.88
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1,084,046.01
363.20	SERVICES TO CUSTOMERS	1,277,071.98
364.00	FLOW MEASURING DEVICES	20,954.25
371.40	PUMPING EQUIPMENT	311,229.91
380.40	TREATMENT AND DISPOSAL EQUIPMENT	11,918,695.22
390.70	EQUIPMENT - GENERAL PLANT	7,582.00
396.70	COMMUNICATION EQUIPMENT	5,119.15
	TOTAL COMPANY	43,486,278.08

Appendix A-5.2 (Gannett) **EXHIBIT 9** 

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#### **BOROUGH OF ROYERSFORD** BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### SUMMARY OF SERVICE LIFE ESTIMATES AND CALCULATED ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	SURVIVOR CURVE	REPLACEMENT COST	ACCRUED DEPRECIATION
(1)	(2)	(3)	(4)	(5)
353.20	LAND AND LAND RIGHTS - COLLECTION	NONDEPRECIABLE	13.00	
353.30	LAND AND LAND RIGHTS - PUMPING	NONDEPRECIABLE	39.00	
353.40	LAND AND LAND RIGHTS - TREATMENT	NONDEPRECIABLE	3,000.00	
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	65-R3	1,115,943.07	704,829
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	70-R2.5	13,450,848.48	9,405,215
355.00	POWER GENERATION EQUIPMENT	30-S2	769,838.10	308,876
360.21	COLLECTION SEWERS - FORCE - MAINS	70-R2.5	977,576.86	797,128
361.21	COLLECTION SEWERS - GRAVITY - MAINS	70-R2.5	11,698,064.17	9,743,000
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	50-R2.5	846,256.88	91,302
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	65-R3	1,084,046.01	952,529
363.20	SERVICES TO CUSTOMERS	60-R2.5	1,277,071.98	1,125,070
364.00	FLOW MEASURING DEVICES	30-L3	20,954.25	6,035
371.40	PUMPING EQUIPMENT	40-R1.5	311,229.91	56,352
380.40	TREATMENT AND DISPOSAL EQUIPMENT	45-S0.5	11,918,695.22	7,037,700
390.70	EQUIPMENT - GENERAL PLANT	15-SQ	7,582.00	2,401
396.70	COMMUNICATION EQUIPMENT	15-SQ	5,119.15	1,621
	TOTAL COMPANY		43,486,278.08	30,232,058

BOROUGH OF ROYERSFORD
BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

EXHIBIT 10 Page 1 of 2

### SUMMARY OF REPLACEMENT COST AND TRANSITION FACTORS BY ACCOUNT AND VINTAGE YEAR OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT	DESCRIPTION	VINTAGE YEAR	BASE COST	TRANSITION FACTOR	FACTOR REFERENCE	REPLACEMENT COST
(1)	(2)	(3)	(4)	(5)	(6)	(7)
353.20	LAND AND LAND RIGHTS - COLLECTION	1937	3.00	1.00	(1)	3.00
353.20	LAND AND LAND RIGHTS - COLLECTION	1961	10.00	1.00	(1)	10.00
353.30	LAND AND LAND RIGHTS - PUMPING	2000	39.00	1.00	(1)	39.00
353.40	LAND AND LAND RIGHTS - TREATMENT	1935	3,000.00	1.00	(1)	3,000.00
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1935	6,542.00	44.56	(2)	291,527.88
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1958	25,335.00	14.26	(2)	361,277.10
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1988	140.00	2.84	(2)	397.69
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1989	64,986.00	2.69	(2)	174,849.12
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1990	25,978.00	2.63	(2)	68,348.02
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	2000	91,694.00	1.97	(2)	180,601.72
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	2011	6,691.00	1.22	(2)	8,168.98
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	2012	15,071.00	1.18	(2)	17,790.77
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	2019	13,000.00	1.00	(2)	12,981.79
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1935	225,721.00	44.56	(2)	10,058,692.06
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1986	22,410.00	3.06	(2)	68,576.52
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1987	550.00	2.98	(2)	1,640.79
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1993	62,901.00	2.43	(2)	152,545.62
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	1998	1,462,008.00	2.12	(2)	3,093,209.80
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2014	3,850.00	1.13	(2)	4,350.32
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	2015	65,184.00	1.10	(2)	71,833.37
355.00	POWER GENERATION EQUIPMENT	2000	45,847.00	2.54	(3)	116,434.08
355.00	POWER GENERATION EQUIPMENT	2008	303,849.00	2.03	(3)	616,863.88
355.00	POWER GENERATION EQUIPMENT	2012	21,392.00	1.71	(3)	36,540.14
360.21	COLLECTION SEWERS - FORCE - MAINS	1935	18,585.00	43.47	(4)	807,958.42
360.21	COLLECTION SEWERS - FORCE - MAINS	1958	12,937.00	13.11	(4)	169,618.44
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1935	174,707.48	41.30	(4)	7,215,418.92
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1936	105,020.54	41.30	(4)	4,337,348.30
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1955	1,136.00	15.58	(4)	17,704.45
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1972	3,227.92	8.43	(4)	27,206.75
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1990	9,984.07	2.74	(4)	27,398.15
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1992	15,462.64	2.66	(4)	41,067.98
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1994	7,173.00	2.53	(4)	18,118.95
361.21	COLLECTION SEWERS - GRAVITY - MAINS	1995	5,547.00	2.49	(4)	13,800.67
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	2013	191,498.00	1.18	(4)	225,645.29
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	2014	369,468.00	1.13	(4)	417,483.68
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	2015	181,979.00	1.12	(4)	203,127.91
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1935	14,993.00	43.47	(4)	651,800.95
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1936	9,048.00	41.30	(4)	373,682.40
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1955	295.00	15.58	(4)	4,597.55
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1972	782.17	8.43	(4)	6,592.58
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1985	1,870.00	3.25	(4)	6,081.18
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1990	4,222.74	2.74	(4)	11,587.98
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1992	8,897.02	2.66	(4)	23,630.03
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	1995	2,441.10	2.49	(4)	6,073.34
363.20	SERVICES TO CUSTOMERS	1935	14,754.40	52.62	(5)	776,308.43
363.20	SERVICES TO CUSTOMERS	1936	8,919.13	52.62	(5)	469,283.46
363.20 363.20	SERVICES TO CUSTOMERS	1972 1990	3,131.85	7.13 2.61	(5)	22,314.43
363.20	SERVICES TO CUSTOMERS SERVICES TO CUSTOMERS	2013	2,074.61	1.14	(5)	5,416.16
364.00	FLOW MEASURING DEVICES	2011	3,300.00 17,927.00	1.17	(5) (6)	3,749.50 20,954.25
371.40	PUMPING EQUIPMENT	2005	9,925.00	2.20	(3)	21,828.51
371.40	PUMPING EQUIPMENT	2010	131,000.00	1.91	(3)	250,463.07
371.40	PUMPING EQUIPMENT	2018	35,004.00	1.11	(3)	38,938.33
380.40	TREATMENT AND DISPOSAL EQUIPMENT	1951	354,456.00	21.05	(7)	7,461,298.80
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2006	1,500.00	1.67	(7)	2,505.95
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2007	15,000.00	1.57	(7)	23,519.55
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2010	3,031,371.00	1.32	(7)	4,006,929.96
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2011	8,993.00	1.29	(7)	11,578.14
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2014	3,850.00	1.16	(7)	4,471.31
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2016	11,091.00	1.11	(7)	12,271.51
380.40	TREATMENT AND DISPOSAL EQUIPMENT	2020	396,120.00	1.00	(7)	396,120.00
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# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

EXHIBIT 10 Page 2 of 2

### SUMMARY OF REPLACEMENT COST AND TRANSITION FACTORS BY ACCOUNT AND VINTAGE YEAR OF WASTEWATER SYSTEM AS OF MARCH 31, 2020

ACCOUNT (1)	DESCRIPTION (2)	VINTAGE YEAR (3)	BASE COST (4)	TRANSITION FACTOR (5)	FACTOR REFERENCE (6)	REPLACEMENT COST (7)
390.70 396.70	EQUIPMENT - GENERAL PLANT COMMUNICATION EQUIPMENT	2015 2015	7,325.00 5,275.00	1.04 0.97	(8)	7,582.00 5,119.15
390.70	COMMONICATION EQUIPMENT	2013	5,275.00	0.97	(9)	5,119.15
	TOTAL COMPANY		7,666,492.67			43,486,278.08
NOTES: (1)	Not trended					
(2)	Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost 7	Γrends of Water Utility	Construction, North	Atlantic Region	, Line 8	
(3)	Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost 7	Γrends of Water Utility	Construction, North	Atlantic Region	, Line 9	
(4)	Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost 7	Γrends of Water Utility	Construction, North	Atlantic Region	, Line 34	
(5)	Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost 7	Γrends of Water Utility	Construction, North	Atlantic Region	, Line 39	

(6) Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost Trends of Water Utility Construction, North Atlantic Region, Line 40
 (7) Handy-Whitman Index of Public Utility Costs, 7/1/19, Cost Trends of Water Utility Construction, North Atlantic Region, Line 16
 (8) U.S. Bureau of Labor Statistics, Producer Price Index: PPI industry group data for Audio & video equipment mfg, not seasonally adjusted.
 (9) U.S. Bureau of Labor Statistics, Producer Price Index: PPI industry data for Broadcast and wireless communications equipment

mfg, not seasonally adjusted.

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.20 LAND AND LAND RIGHTS - COLLECTION

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNUA	L ACCRUAL		ACCRUED	DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NONDEPR.	ECIABLE						
1937	3.00						
1961	10.00						
	13.00						

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.30 LAND AND LAND RIGHTS - PUMPING

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNU	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

NONDEPRECIABLE

2000 39.00

39.00

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 353.40 LAND AND LAND RIGHTS - TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNUA	AL ACCRUAL		ACCRUE	D DEPREC
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

NONDEPRECIABLE

1935 3,000.00

3,000.00

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - PUMPING

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

	ORIGINAL	AVG.	ANNUAL ACCRUAL		ACCRUED	DEPREC	
YEAR	COST	LIFE	RATE	AMOUNT	EXP.	FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
SURVIVO	R CURVE IOWA	65-R3					
NET SALV	VAGE PERCENT	0					
1935	291,527.88	65.00	1.54	4,489.53	6.27	0.9035	263,407
1958	361,277.10	65.00	1.54	5,563.67	14.72	0.7735	279,462
1988	397.69	65.00	1.54	6.12	35.59	0.4525	180
1989	174,849.12	65.00	1.54	2,692.68	36.43	0.4395	76,853
1990	68,348.02	65.00	1.54	1,052.56	37.28	0.4265	29,148
2000	180,601.72	65.00	1.54	2,781.27	46.11	0.2906	52,486
2011	8,168.98	65.00	1.54	125.80	56.46	0.1314	1,073
2012	17,790.77	65.00	1.54	273.98	57.43	0.1165	2,072
2019	12,981.79	65.00	1.54	199.92	64.26	0.0114	148
1	,115,943.07			17,185.53			704,829

## BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TREATMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVOR CURVE IOWA NET SALVAGE PERCENT							
1935	10,058,692.06	70.00	1.43	143,839.30	11.24	0.8394	8,443,568
1986	68,576.52	70.00	1.43	980.64	40.23	0.4253	29,165
1987	1,640.79	70.00	1.43	23.46	41.03	0.4139	679
1993	152,545.62	70.00	1.43	2,181.40	45.95	0.3436	52,410
1998	3,093,209.80	70.00	1.43	44,232.90	50.21	0.2827	874,481
2014	4,350.32	70.00	1.43	62.21	64.61	0.0770	335
2015	71,833.37	70.00	1.43	1,027.22	65.54	0.0637	4,577
	13,450,848.48			192,347.13			9,405,215

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	C CURVE IOWA VAGE PERCENT	30-S2 0					
2000 2008 2012	116,434.08 616,863.88 36,540.14	30.00 30.00 30.00	3.33 3.33 3.33	3,877.25 20,541.57 1,216.79	12.74 18.69 22.34	0.5753 0.3770 0.2553	66,988 232,558 9,330
	769,838.10			25,635.61			308,876

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.33

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 360.21 COLLECTION SEWERS - FORCE - MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE IOWA AGE PERCENT						
1935 1958	807,958.42 169,618.44	70.00 70.00	1.43 1.43	11,553.81 2,425.54	11.24 20.93	0.8394 0.7010	678,225 118,903
	977,576.86			13,979.35			797,128

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.21 COLLECTION SEWERS - GRAVITY - MAINS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	VOR CURVE IOWA ALVAGE PERCENT						
1935 1936 1955 1972 1990 1992 1994 1995	7,215,418.92 4,337,348.30 17,704.45 27,206.75 27,398.15 41,067.98 18,118.95 13,800.67	70.00 70.00 70.00 70.00 70.00 70.00 70.00	1.43 1.43 1.43 1.43 1.43 1.43 1.43	103,180.49 62,024.08 253.17 389.06 391.79 587.27 259.10 197.35	11.24 11.54 19.31 29.76 43.46 45.11 46.79 47.64	0.8394 0.8351 0.7241 0.5749 0.3791 0.3556 0.3316	6,056,839 3,622,293 12,821 15,640 10,388 14,603 6,008 4,408
	11,698,064.17		- 2	167,282.31			9,743,000

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.43

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.22 COLLECTION SEWERS - GRAVITY - MAINS RELINING

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVOR	CURVE IOWA AGE PERCENT	50-R2.5 0					
2013 2014 2015	225,645.29 417,483.68 203,127.91	50.00 50.00 50.00	2.00 2.00 2.00	4,512.91 8,349.67 4,062.56	43.71 44.63 45.55	0.1258 0.1074 0.0890	28,386 44,838 18,078
	846,256.88			16,925.14			91,302

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.00

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 361.23 COLLECTION SEWERS - GRAVITY - MANHOLES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAI RATE (4)	L ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	OR CURVE IOWA LVAGE PERCENT						
1935 1936 1955 1972 1985 1990 1992	651,800.95 373,682.40 4,597.55 6,592.58 6,081.18 11,587.98 23,630.03 6,073.34	65.00 65.00 65.00 65.00 65.00 65.00 65.00	1.54 1.54 1.54 1.54 1.54 1.54 1.54	10,037.73 5,754.71 70.80 101.53 93.65 178.45 363.90 93.53	6.27 6.53 13.23 23.28 33.12 37.28 38.99 41.61	0.9035 0.8995 0.7965 0.6419 0.4905 0.4265 0.4002 0.3599	588,928 336,142 3,662 4,231 2,983 4,942 9,456 2,185
	1,084,046.01		<u>.</u>	16,694.30	<b></b>		952,529

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.54

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 363.20 SERVICES TO CUSTOMERS

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
SURVIVOR							
NET SALV	AGE PERCENT	0					
1935	776,308.43	60.00	1.67	12,964.35	6.55	0.8908	691,559
1936	469,283.46	60.00	1.67	7,837.03	6.78	0.8870	416,254
1972	22,314.43	60.00	1.67	372.65	21.01	0.6498	14,501
1990	5,416.16	60.00	1.67	90.45	33.83	0.4362	2,362
2013	3,749.50	60.00	1.67	62.62	53.69	0.1052	394
1	,277,071.98			21,327.10			1,125,070

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 1.67

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

#### ACCOUNT 364.00 FLOW MEASURING DEVICES

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	CURVE IOWA AGE PERCENT						
2011	20,954.25	30.00	3.33	697.78	21.36	0.2880	6,035
	20,954.25			697.78			6,035

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 3.33

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

## ACCOUNT 371.40 PUMPING EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE IOWA /AGE PERCENT	40-R1.5 0					
2005 2010 2018	21,828.51 250,463.07 38,938.33	40.00 40.00 40.00	2.50 2.50 2.50	545.71 6,261.58 973.46	28.46 32.23 38.56	0.2885 0.1943 0.0360	6,298 48,652 1,402
	311,229.91			7,780.75			56,352

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.50

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

## ACCOUNT 380.40 TREATMENT AND DISPOSAL EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	VOR CURVE IOWA ALVAGE PERCENT						
1951	7,461,298.80	45.00	2.22	165,640.83	7.25	0.8389	6,259,209
2006	2,505.95	45.00	2.22	55.63	33.34	0.2591	649
2007	23,519.55	45.00	2.22	522.13	34.08	0.2427	5,707
2010	4,006,929.96	45.00	2.22	88,953.85	36.38	0.1916	767,568
2011	11,578.14	45.00	2.22	257.03	37.18	0.1738	2,012
2014	4,471.31	45.00	2.22	99.26	39.68	0.1182	529
2016	12,271.51	45.00	2.22	272.43	41.45	0.0789	968
2020	396,120.00	45.00	2.22	8,793.86	44.88	0.0027	1,058
	11,918,695.22			264,595.02			7,037,700

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 2.22

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

ACCOUNT 390.70 EQUIPMENT - GENERAL PLANT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	C CURVE 15-9 AGE PERCENT.	~					
2015	7,582.00	15.00	6.67	505.72	10.25	0.3167	2,401
	7,582.00			505.72			2,401

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.67

# BOROUGH OF ROYERSFORD BOROUGH OF ROYERSFORD WASTEWATER SYSTEM ASSETS

## ACCOUNT 396.70 COMMUNICATION EQUIPMENT

# CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO REPLACEMENT COST AT MARCH 31, 2020

YEAR (1)	ORIGINAL COST (2)	AVG. LIFE (3)	ANNUAL RATE (4)	ACCRUAL AMOUNT (5)	EXP. (6)	ACCRUED FACTOR (7)	DEPREC AMOUNT (8)
	R CURVE 15-9 VAGE PERCENT.	~					
2015	5,119.15	15.00	6.67	341.45	10.25	0.3167	1,621
	5,119.15			341.45			1,621

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT .. 6.67

EXHIBIT 12 Page 1 of 3

# Income Approach Borough of Royersford Wastewater System Assets Pro Forma Operations Earnings Capitalization Model

		Г	Budget	Budget
	Actua	1		Year 0
•	<u>2017</u>	2018	2019	<u>2020</u>
1. OPERATING REVENUES (1)				
2. Charges for services	797,521	778,908	841,800	841,800
3. Other operating revenue	0	0	21,200	12,600
4. Tap Fees	0	0	0	0
5. Total Operating Revenues	797,521	778,908	863,000	854,400
6. Rate Increase				
7. OPERATING EXPENSES (1)				
8. Operating & Maintenance Expenses	534,843	585,661	582,635	608,431
9. Operating Expenses Before Depreciation	534,843	585,661	582,635	608,431
10. Depreciation (2)	166,468	166,649	0	154,351
11. Total Operating Expenses	701,311	752,310	582,635	762,782
12. Operating Income	96,210	26,598	280,365	91,618
13. Revenues (3)	797,521	778,908	863,000	854,400
<b>14</b> . EBITDA (4)	262,678	193,247	280,365	245,969
<b>15</b> . EBIT (5)	96,210	26,598	280,365	91,618
16. EBIT	96,210	26,598	280,365	91,618
17. (-) Income Taxes	0	0	0	0
18. Debt Free Net Income	96,210	26,598	280,365	91,618
19. (+) Depreciation & Amortization	166,468	166,649	0	154,351
20. (-) Capital Expenditures (6)	10,952	51,054	0	0
21. (-) Changes in Working Capital (7)	558	545	604	598
22. Debt Free Net Cash Flow	\$251,168	\$141,648	\$279,761	\$245,371

EXHIBIT 12 Page 2 of 3

## Income Approach Borough of Royersford Wastewater System Assets Pro Forma Operations Earnings Capitalization Model

Pro Forma

		<u>2020</u>	2020 (11)
		3.70% Capitalization Rate Model (No Growth)	3.70% Capitalization Rate Model (No Growth)
23.	Debt Free Net Cash Flow (10)	\$245,371	\$174,738
24.	Capitalization Factor: (8)	3.70%	3.70%
25.	Indicated Value (line 23 ÷ line 24)	\$6,631,646	\$4,722,652
		3.50% Capitalization Rate Model (0.20% Growth)	3.50% Capitalization Rate Model (0.20% Growth)
26.	Debt Free Net Cash Flow (10)	\$245,371	\$174,738
27.	Capitalization Factor: (9)	3.50%	3.50%
28.	Indicated Value (line 26 ÷ line 27)	\$7,010,598	\$4,992,518

EXHIBIT 12 Page 3 of 3

#### Income Approach

# Borough of Royersford Wastewater System Assets Pro Forma Operations <u>Earnings Capitalization Model</u>

#### Notes: (1) Assumptions:

Charges for services - Pre-2021 are actual or budget. Post-2020 based on customer growth (EDU) and average revenue per customer.

OPERATING EXPENSES - increase at 2.0% annually after 2020 unless noted elsewhere. Assumed economies of scale are shown on lines below.

- (2) Depreciation Pre-2021 based on actual depreciation rate plus same rate on half of CAPX. Post-2020 based on depreciation rate plus same rate on half of CAPX.
- (3) Line 5.
- (4) Line 12 + line 10.
- (5) Line 12.
- (6) Capital Expenditures Pre-2021 based on financials/budget. Post-2020 years are estimates at 1.99% of prior year-end GROSS Property, plant and equipment.
- (7) Changes in Working Capital based on water industry 0.07% of revenues.
- (8) Discount rate is the the current MUNI discount rate. Capitalization rate ( K ) at 3/31/2020 equal to discount rate, where capitalization rate = K g.
- (9) Discount rate is the current MUNI discount rate. Capitalization rate ( K ) at 3/31/2020 adjusted for stated growth ( g ) where capitalization rate = K g.
- (10) Final year shown, line 22.
- (11) Debt Free Net Cash Flow adjusted for average existing assets's CAPX of \$70,633 if system is not sold.

#### Terms:

**CAPX** - Capital Expenditures

CIP - Capital improvement plan

Dep - Depreciation expense

GROSS PPE - GROSS Property, plant and equipment

IOU - Investor owned utility

MUNI - Large regional municipally owned utility

NET PPE - NET Property, plant and equipment

EXHIBIT 13 Page 1 of 7

#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

		Г	Budget	Budget	Estimated	Estimated
Γ	Actua	1	8	Year 0	Year 1	Year 2
_	2017	2018	2019	2020	2021	2022
1. OPERATING REVENUES (1)						
2. Charges for services	797,521	778,908	841,800	841,800	842,590	842,853
3. Other operating revenue	0	0	21,200	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	149,185
6. Total Operating Revenues	797,521	778,908	863,000	854,400	855,190	1,004,638
7. Rate Increase						18%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	534,843	585,661	582,635	608,431	620,600	633,012
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	0	(45,775)	(46,691)
12. LESS: EOS - Professional Services	0	0	0	0	(26,214)	(26,738)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. Operating Expenses Before Depreciation	534,843	585,661	582,635	608,431	548,610	559,583
16. Depreciation (2)	166,468	166,649	0	154,351	155,170	157,794
17. Total Operating Expenses	701,311	752,310	582,635	762,782	703,780	717,377
- 10. On and fine Income	06.210	26.500	200.265	01.610	151 410	207.261
18. Operating Income	96,210	26,598	280,365	91,618	151,410	287,261
19. Revenues (3)	797,521	778,908	863,000	854,400	855,190	1,004,638
20. EBITDA (4)	262,678	193,247	280,365	245,969	306,580	445,055
<b>21.</b> EBIT (5)	96,210	26,598	280,365	91,618	151,410	287,261
<b>22</b> . EBIT	96,210	26,598	280,365	91,618	151,410	287,261
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	96,210	26,598	280,365	91,618	151,410	287,261
25. (+) Depreciation & Amortization	166,468	166,649	0	154,351	155,170	157,794
26. (-) Capital Expenditures (6)	10,952	51,054	0	0	152,556	155,136
27. (-) Changes in Working Capital (7)	558	545	604	598	599	703
28. Debt Free Net Cash Flow	\$251,168	\$141,648	\$279,761	\$245,371	\$153,425	\$289,216
29. PV Time Period (mid-year)	<b>4201,100</b>	Ψ111,010	\$277,701	(0.5)	0.5	1.5
20 D					0.0020	0.0470
30. Present Value Factor: 3.70% (8)					0.9820	0.9470
31. Present Value Debt Free Net Cash Flow				=	\$150,663	\$273,888
32. Present Value Factor: 3.50% (9)					0.9829	0.9497

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Γ	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Ť	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
_	2023	2024	2025	<u>2026</u>	2027	2028
<b>OPERATING REVENUES (1)</b>						
Charges for services	992,657	995,133	1,024,430	1,028,835	1,053,924	1,058,456
Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0	0	0
Other (Rate Increase)	0	24,878	0	20,577	0	20,111
Total Operating Revenues	1,005,257	1,032,611	1,037,030	1,062,012	1,066,524	1,091,167
Rate Increase		2%		2%		2%
OPERATING EXPENSES (1)						
Operating & Maintenance Expenses	645,672	658,585	671,757	685,192	698,896	712,874
Remove Economies of Scale						
LESS: EOS - Wages & Benefits	(47,625)	(48,577)	(49,549)	(50,540)	(51,550)	(52,581)
LESS: EOS - Professional Services	(27,273)	(27,819)	(28,375)	(28,942)	(29,521)	(30,112)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
<b>Operating Expenses Before Depreciation</b>	570,774	582,190	593,833	605,710	617,824	630,181
Depreciation (2)	160,463	163,177	165,938	168,744	171,599	174,501
Total Operating Expenses	731,237	745,367	759,771	774,454	789,423	804,681
Operating Income	274,020	287,244	277,259	287,558	277,101	286,486
Revenues (3)	1,005,257	1,032,611	1,037,030	1,062,012	1,066,524	1,091,167
EBITDA (4)	434,483	450,421	443,197	456,302	448,700	460,986
EBIT (5)	274,020	287,244	277,259	287,558	277,101	286,486
EBIT	274,020	287,244	277,259	287,558	277,101	286,486
(-) Income Taxes	274,020	287,244	277,259	287,558 0	2//,101	286,486
( ) INCOINC TAKES	U	U	<u> </u>	U	U	U
Debt Free Net Income	274,020	287,244	277,259	287,558	277,101	286,486
(+) Depreciation & Amortization	160,463	163,177	165,938	168,744	171,599	174,501
(-) Capital Expenditures (6)	157,760	160,428	163,142	165,901	168,707	171,561
(-) Changes in Working Capital (7)	704	723	726	743	747	764
Debt Free Net Cash Flow	\$276,019	\$289,271	\$279,329	\$289,657	\$279,246	\$288,661
PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
Present Value Factor: 3.70% (8)	0.9132	0.8806	0.8492	0.8189	0.7897	0.7615
Present Value Debt Free Net Cash Flow	\$252,061	\$254,732	\$237,206	\$237,201	\$220,521	\$219,816
Present Value Factor: 3.50% (9)	0.9176	0.8866	0.8566	0.8276	0.7996	0.7726
Present Value Debt Free Net Cash Flow	\$253,275	\$256,467	\$239,273	\$239,721	\$223,285	\$223,020

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Ì	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
	<u>2029</u>	<u>2030</u>	<u>2031</u>	2032	<u>2033</u>	2034
OPERATING REVENUES (1)					* * * * · · ·	
Charges for services	1,083,205	1,087,863	1,114,391	1,119,183	1,147,600	1,152,534
Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0	0	0
Other (Rate Increase)  Total Operating Revenues	1,095,805	21,757	1,126,991	23,503	1,160,200	23,051
		1,122,220	1,120,991	1,155,286	1,100,200	1,188,185
Rate Increase		2%		2%		2%
OPERATING EXPENSES (1)						
Operating & Maintenance Expenses	727,131	741,674	756,507	771,638	787,070	802,812
Remove Economies of Scale						
LESS: EOS - Wages & Benefits	(53,633)	(54,706)	(55,800)	(56,916)	(58,054)	(59,215)
LESS: EOS - Professional Services	(30,714)	(31,328)	(31,955)	(32,594)	(33,246)	(33,911)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
Operating Expenses Before Depreciation	642,784	655,640	668,753	682,128	695,771	709,686
Depreciation (2)	177,452	180,454	183,506	186,610	189,766	192,976
Total Operating Expenses	820,236	836,094	852,259	868,738	885,537	902,662
Operating Income	275 570	207.127	074.700	207.540	274.662	205 522
Operating Income	275,569	286,126	274,732	286,548	274,663	285,523
Revenues (3)	1,095,805	1,122,220	1,126,991	1,155,286	1,160,200	1,188,185
EBITDA (4)	453,021	466,580	458,238	473,158	464,429	478,499
EBIT (5)	275,569	286,126	274,732	286,548	274,663	285,523
EBIT	275,569	286,126	274,732	286,548	274,663	285,523
(-) Income Taxes	0	0	0	0	0	0
DICE NO	255.560	207.127	074 700	207.540	254 ((2	205 523
Debt Free Net Income	275,569	286,126	274,732	286,548	274,663	285,523
(+) Depreciation & Amortization	177,452	180,454	183,506	186,610	189,766	192,976
(-) Capital Expenditures (6)	174,463	177,414 786	180,414	183,466	186,569	189,725
(-) Changes in Working Capital (7)	767	786	789	809	812	832
Debt Free Net Cash Flow	\$277,791	\$288,380	\$277,035	\$288,883	\$277,048	\$287,942
PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
Present Value Factor: 3.70% (8)	0.7343	0.7081	0.6828	0.6585	0.6350	0.6123
Present Value Debt Free Net Cash Flow	\$203,982	\$204,202	\$189,160	\$190,230	\$175,926	\$176,307
Present Value Factor: 3.50% (9)	0.7465	0.7212	0.6968	0.6733	0.6505	0.6285
Present Value Debt Free Net Cash Flow	\$207,371	\$207,980	\$193,038	\$194,505	\$180,220	\$180,972

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Γ	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Ī	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
_	2035	2036	2037	2038	2039	<u>2040</u>
<b>OPERATING REVENUES (1)</b>						
Charges for services	1,180,640	1,185,717	1,215,822	1,221,050	1,250,827	1,256,205
Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0	0	0
Other (Rate Increase)	0	24,900	0	24,421	0	26,380
Total Operating Revenues	1,193,240	1,223,217	1,228,422	1,258,071	1,263,427	1,295,185
Rate Increase		2%		2%		2%
OPERATING EXPENSES (1)						
Operating & Maintenance Expenses	818,868	835,245	851,950	868,989	886,369	904,096
Remove Economies of Scale						
LESS: EOS - Wages & Benefits	(60,400)	(61,608)	(62,840)	(64,096)	(65,378)	(66,686)
LESS: EOS - Professional Services	(34,589)	(35,281)	(35,986)	(36,706)	(37,440)	(38,189)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
<b>Operating Expenses Before Depreciation</b>	723,880	738,357	753,124	768,187	783,551	799,222
Depreciation (2)	196,240	199,559	202,934	206,367	209,858	213,407
Total Operating Expenses	920,120	937,917	956,059	974,554	993,409	1,012,629
_	252.120	205.200	252.262	202.515	250.010	202.556
Operating Income	273,120	285,300	272,363	283,517	270,018	282,556
Revenues (3)	1,193,240	1,223,217	1,228,422	1,258,071	1,263,427	1,295,185
EBITDA (4)	469,360	484,860	475,298	489,884	479,876	495,963
EBIT (5)	273,120	285,300	272,363	283,517	270,018	282,556
EBIT	273,120	285,300	272,363	283,517	270,018	282,556
(-) Income Taxes	0	0	0	0	0	0
Debt Free Net Income	273,120	285,300	272,363	283,517	270,018	282,556
(+) Depreciation & Amortization	196,240	199,559	202,934	206,367	209,858	213,407
(-) Capital Expenditures (6)	192,934	196,197	199,516	202,890	206,322	209,812
(-) Changes in Working Capital (7)	835	856	860	881	884	907
Debt Free Net Cash Flow	\$275,591	\$287,806	\$274,922	\$286,113	\$272,670	\$285,245
PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
Present Value Factor: 3.70% (8)	0.5905	0.5694	0.5491	0.5295	0.5106	0.4924
Present Value Debt Free Net Cash Flow	\$162,737	\$163,877	\$150,960	\$151,497	\$139,225	\$140,455
Present Value Factor: 3.50% (9)	0.6072	0.5867	0.5669	0.5477	0.5292	0.5113
Present Value Debt Free Net Cash Flow	\$167,339	\$168,856	\$155,853	\$156,704	\$144,297	\$145,846

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Г	Estimated	Estimated	Estimated	Estimated
Ť	Year 21	Year 22	Year 23	Year 24
_	2041	2042	2043	2044
<b>OPERATING REVENUES (1)</b>				
Charges for services	1,288,101	1,293,640	1,327,785	1,333,494
Other operating revenue	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0
Other (Rate Increase)	0	28,460	0	30,670
Total Operating Revenues	1,300,701	1,334,700	1,340,385	1,376,764
Rate Increase	_ <del>_</del>	2%		2%
OPERATING EXPENSES (1)				
Operating & Maintenance Expenses	922,178	940,622	959,434	978,623
Remove Economies of Scale				
LESS: EOS - Wages & Benefits	(68,020)	(69,380)	(70,768)	(72,183)
LESS: EOS - Professional Services	(38,953)	(39,732)	(40,526)	(41,337)
LESS: EOS - Eliminated Expenses	0	0	0	0
ADD: Additional O&M	0	0	0	0
Operating Expenses Before Depreciation	815,206	831,510	848,140	865,103
Depreciation (2)	217,016	220,688	224,420	228,216
Total Operating Expenses	1,032,222	1,052,198	1,072,560	1,093,319
Operating Income	268,479	282,502	267,825	283,445
=	,	, ·	<i>,</i> -	, -
Revenues (3)	1,300,701	1,334,700	1,340,385	1,376,764
EBITDA (4)	485,495	503,190	492,245	511,661
EBIT (5)	268,479	282,502	267,825	283,445
EBIT	268,479	282,502	267,825	283,445
(-) Income Taxes	208,479	282,302	267,823	283,443
	U		U	
Debt Free Net Income	268,479	282,502	267,825	283,445
(+) Depreciation & Amortization	217,016	220,688	224,420	228,216
(-) Capital Expenditures (6)	213,360	216,969	220,639	224,371
(-) Changes in Working Capital (7)	910	934	938	964
Debt Free Net Cash Flow	\$271,224	\$285,287	\$270,667	\$286,326
PV Time Period (mid-year)	20.5	21.5	22.5	23.5
Present Value Factor: 3.70% (8)	0.4748	0.4579	0.4415	0.4258
Present Value Debt Free Net Cash Flow	\$128,777	\$130,633	\$119,500	\$121,918
= 1.050.1 rand Dest Fice Net Cash Flow	Ψ120,///	Ψ130,033	ψ117,JUU	Ψ121,710
Present Value Factor: 3.50% (9)	0.4940	0.4773	0.4611	0.4456
Present Value Debt Free Net Cash Flow	\$133,985	\$136,167	\$124,805	\$127,587
= (	See last nage of th	Se EVHIDIT C.		

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal V	DCF With Capitalization of Terminal Value Model @ 3.70%					
	Terminal					
	Value					
Projected Debt Free Net Cash Flow (10)	\$286,326					
Divided by Capitalization Factor (8)	3.70%					
24th Year Terminal Value	7,738,542					
24th Year Present Value Factor (11)	0.4258					
Present Value of Terminal Value	3,295,071					
Present Value Debt Free Net						
Cash Flow for 24 Years	4,395,469					
Indicated Value	\$7,690,540					

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.70%							
			Terminal				
		Multiples (13)	Value				
	0202.445	25.4	07.744.200				
Projected EBIT	\$283,445	27.4	\$7,766,389				
Projected EBITDA	511,661	19.4	9,926,219				
Weighted (1/3 EBIT 2/3 EBITDA) Termi	9,213,475						
24th Year Present Value Factor (11)		_	0.4258				
Present Value of Terminal Value			3,923,098				
Present Value Debt Free Net							
Cash Flow for 24 Years		_	4,395,469				
Indicated Value		_	\$8,318,567				
		_					

DCF With Capitalization of Terminal Value Model @ 3.50%				
	Terminal			
	Value			
Projected Debt Free Net Cash Flow (10)	\$286,326			
Divided by Capitalization Factor (9)	3.50%			
24th Year Terminal Value	8,180,745			
24th Year Present Value Factor (12)	0.4258			
Present Value of Terminal Value	3,483,361			
Present Value Debt Free Net				
Cash Flow for 24 Years	4,395,469			
Indicated Value	\$7,878,830			

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.50%						
		Multiples (13)	Terminal <u>Value</u>			
Projected EBIT	\$283,445	27.4	\$7,766,389			
Projected EBITDA	511,661	19.4	9,926,219			
Weighted (1/3 EBIT 2/3 EBITDA) Termi	9,213,475					
24th Year Present Value Factor (12)		_	0.4258			
Present Value of Terminal Value			3,923,098			
Present Value Debt Free Net						
Cash Flow for 24 Years		_	4,395,469			
Indicated Value		_	\$8,318,567			

EXHIBIT 13
Page 7 of 7

#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

#### Notes: (1) Assumptions:

Charges for services - Pre-2021 are actual or budget. Post-2020 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by MUNI at end of 2020 with shown rate increases.

OPERATING EXPENSES - increase at 2.0% annually after 2020 unless noted elsewhere. Assumed economies of scale are shown on lines below. Wages & Benefits - Post-2020 assumed 15% savings due to economies of scale. Increase at 2.0% afterwards.

Professional Services - Post-2020 assumed 50% savings due to economies of scale. Increase at 2.0% afterwards.

No Additional O&M.\

(2)

Depreciation - Pre-2021 based on actual depreciation rate plus same rate on half of CAPX. Post-2020 based on depreciation rate plus same rate on half of CAPX.

- (3) Line 6.
- (4) Line 18 + line 16.
- (5) Line 18.
- (6) Capital Expenditures Pre-2021 based on financials/budget. Post-2020 years are estimates at 1.99% of prior year-end GROSS Property, plant and equipment.
- (7) Changes in Working Capital based on water industry 0.07% of revenues.
- (8) Discount rate is the the current MUNI discount rate. Capitalization rate ( K ) at 3/31/2020 equal to discount rate, where capitalization rate = K g.
- (9) Discount rate is the current MUNI discount rate. Capitalization rate ( K ) at 3/31/2020 adjusted for stated growth ( g ) where capitalization rate = K g.
- (10) Final year shown, line 28.
- (11) Final year shown, line 30.
- (12) Final year shown, line 30.
- (13) Developed on Market Multiples EXHIBIT 17.

#### Terms:

**CAPX** - Capital Expenditures

CIP - Capital improvement plan

Dep - Depreciation expense

GROSS PPE - GROSS Property, plant and equipment

IOU - Investor owned utility

MUNI - Large regional municipally owned utility

NET PPE - NET Property, plant and equipment

EXHIBIT 14 Page 1 of 7

#### Income Approach

			Budget	Budget	Estimated	Estimated
	Actua	1		Year 0	Year 1	Year 2
4 ONED ATING DEVENING (A)	2017	2018	2019	<u>2020</u>	<u>2021</u>	2022
1. OPERATING REVENUES (1)	707.521	770 000	041.000	0.41.000	040.500	0.40, 0.50
2. Charges for services	797,521	778,908	841,800	841,800	842,590	842,853
3. Other operating revenue	0	0	21,200	12,600	12,600	12,600
<ul><li>4. Tap Fees</li><li>5. Other (Rate Increase)</li></ul>	0	0	0	0	0	262 270
6. Total Operating Revenues	797,521	778,908	863,000	854,400	855,190	363,270 1,218,723
7. Rate Increase	171,341	770,700	005,000	0.7,400	055,170	43%
8. OPERATING EXPENSES (1)	534.043	505 ((1	500 (05	COO 421	(20, (00	(22.010
9. Operating & Maintenance Expenses	534,843	585,661	582,635	608,431	620,600	633,012
10. Remove Economies of Scale	0	0	0	0	(45 775)	(46 601)
<ul><li>11. LESS: EOS - Wages &amp; Benefits</li><li>12. LESS: EOS - Professional Services</li></ul>	0	0	0	0	(45,775)	(46,691)
<ul><li>12. LESS: EOS - Professional Services</li><li>13. LESS: EOS - Eliminated Expenses</li></ul>	0	0	0	0	(26,214)	(26,738)
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	0	0	0	0	12,450	12,450
16. Operating Expenses Before Depreciation	534,843	585,661	582,635	608,431	561,060	572,033
17. Depreciation (2)	166,468	166,649	0	154,351	155,170	157,794
18. Total Operating Expenses	701,311	752,310	582,635	762,782	716,230	729,827
10. One wating Income	06.210	26.500	200.265	01 (10	129.000	400.007
19. Operating Income	96,210	26,598	280,365	91,618	138,960	488,896
20. Revenues (3)	797,521	778,908	863,000	854,400	855,190	1,218,723
<b>21</b> . EBITDA (4)	262,678	193,247	280,365	245,969	294,130	646,690
<b>22</b> . EBIT (5)	96,210	26,598	280,365	91,618	138,960	488,896
23. EBIT	96,210	26,598	280,365	91,618	138,960	488,896
24. (-) Income Taxes	0	0	0	26,468	40,146	141,242
25. Debt Free Net Income	96,210	26,598	280,365	65,150	98,814	347,654
26. (+) Depreciation & Amortization	166,468	166,649	0	154,351	155,170	157,794
27. (-) Capital Expenditures (6)	10,952	51,054	0	0	152,556	155,136
28. (-) Changes in Working Capital (7)	558	545	604	598	599	853
29. Debt Free Net Cash Flow	\$251,168	\$141,648	\$279,761	\$218,903	\$100,829	\$349,459
30. PV Time Period (mid-year)				(0.5)	0.5	1.5
31. Present Value Factor: 5.95% (8)					0.9715	0.9170
32. Present Value Debt Free Net Cash Flow				=	\$97,955	\$320,454
33. Present Value Factor: 7.16% (9)					0.9660	0.9015
34. Present Value Debt Free Net Cash Flow				_	\$97,401	\$315,038
35. Present Value Factor: 5.75% (8)				=	0.9724	0.9196
36. Present Value Debt Free Net Cash Flow					\$98,046	\$321,363
37. Present Value Factor: 6.96% (9)				=	0.9669	0.9040
.,						
38. Present Value Debt Free Net Cash Flow	e last page of this	FYHIRIT for no	toe and accumption	=	\$97,492	\$315,911

EXHIBIT 14 Page 2 of 7

#### Income Approach

Γ	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
T	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
_	2023	2024	2025	2026	2027	2028
OPERATING REVENUES (1)						
Charges for services	1,206,875	1,209,886	1,240,645	1,245,980	1,270,107	1,275,569
Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0	0	0
Other (Rate Increase)	1 210 475	25,408	1 252 245	18,690	1 282 707	19,134
Total Operating Revenues	1,219,475	1,247,894	1,253,245	1,277,270	1,282,707	1,307,303
Rate Increase		2%		2%		2%
OPERATING EXPENSES (1)						
Operating & Maintenance Expenses	645,672	658,585	671,757	685,192	698,896	712,874
Remove Economies of Scale						
LESS: EOS - Wages & Benefits	(47,625)	(48,577)	(49,549)	(50,540)	(51,550)	(52,581)
LESS: EOS - Professional Services	(27,273)	(27,819)	(28,375)	(28,942)	(29,521)	(30,112)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
ADD: PURTA & Reg Assessment	14,515	14,515	14,673	14,699	14,832	14,859
Operating Expenses Before Depreciation	585,289	596,705	608,506	620,409	632,656	645,040
Depreciation (2)	160,463	163,177	165,938	168,744	171,599	174,501
Total Operating Expenses	745,752	759,882	774,444	789,153	804,255	819,540
Onewating Income	472 722	400 012	470 001	400 117	470 450	497.762
Operating Income	473,723	488,012	478,801	488,117	478,452	487,763
Revenues (3)	1,219,475	1,247,894	1,253,245	1,277,270	1,282,707	1,307,303
EBITDA (4)	634,186	651,189	644,739	656,861	650,051	662,263
EBIT (5)	473,723	488,012	478,801	488,117	478,452	487,763
EBIT	472 722	400 012	470 001	100 117	170 150	107 762
(-) Income Taxes	473,723 136,859	488,012 140,987	478,801 138,326	488,117 141,017	478,452 138,225	487,763 140,915
(-) medile races	130,037	140,70/	130,320	141,01/	130,443	1+0,713
Debt Free Net Income	336,864	347,025	340,475	347,100	340,227	346,848
(+) Depreciation & Amortization	160,463	163,177	165,938	168,744	171,599	174,501
(-) Capital Expenditures (6)	157,760	160,428	163,142	165,901	168,707	171,561
(-) Changes in Working Capital (7)	854	874	877	894	898	915
Debt Free Net Cash Flow	\$338,713	\$348,901	\$342,393	\$349,049	\$342.221	\$348,872
PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
Present Value Factor: 5.95% (8)	0.8655	0.8169	0.7710	0.7277	0.6868	0.6483
Present Value Debt Free Net Cash Flow	\$293,156	\$285,017	\$263,985	\$254,003	\$235,037	\$226,174
Present Value Factor: 7.16% (9)	0.8412	0.7850	0.7326	0.6836	0.6380	0.5953
Present Value Debt Free Net Cash Flow	\$284,926	\$273,887	\$250,837	\$238,610	\$218,337	\$207,684
Present Value Factor: 5.75% (8)	0.8696	0.8223	0.7776	0.7353	0.6953	0.6575
Present Value Debt Free Net Cash Flow	\$294,545	\$286,901	\$266,245	\$256,656	\$237,946	\$229,383
Present Value Factor: 6.96% (9)	0.8452	0.7902	0.7388	0.6907	0.6457	0.6037
Present Value Debt Free Net Cash Flow	\$286,280	\$275,701	\$252,960	\$241,088	\$220,972	\$210,614

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#### Income Approach

OPERATING REVENUES (1) Charges for services Other operating revenue Tap Fees Other (Rate Increase) Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	Year 9 2029 1,300,269 12,600 0 1,312,869	Year 10 2030 1,305,861 12,600 0 19,588 1,338,049 2%	Year 11 2031  1,331,148 12,600 0 1,343,748	Year 12 2032 1,336,872 12,600 0 20,053	Year 13 2033 1,362,760 12,600 0	Year 14 2034 1,368,620 12,600
Charges for services Other operating revenue Tap Fees Other (Rate Increase) Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	1,300,269 12,600 0	1,305,861 12,600 0 19,588 1,338,049	1,331,148 12,600 0	1,336,872 12,600 0	1,362,760 12,600	1,368,620
Charges for services Other operating revenue Tap Fees Other (Rate Increase) Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	12,600 0 0	12,600 0 19,588 1,338,049	12,600 0 0	12,600 0	12,600	
Other operating revenue Tap Fees Other (Rate Increase) Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	12,600 0 0	12,600 0 19,588 1,338,049	12,600 0 0	12,600 0	12,600	
Tap Fees Other (Rate Increase) Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	0	0 19,588 1,338,049	0	0		12,600
Other (Rate Increase)  Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1)  Operating & Maintenance Expenses Remove Economies of Scale  LESS: EOS - Wages & Benefits	0	19,588 1,338,049	0		n	
Total Operating Revenues  Rate Increase  OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits		1,338,049		20.053		0
OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits	1,312,869		1,343.748		0	21,898
OPERATING EXPENSES (1) Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits		2%	<i>y</i>	1,369,525	1,375,360	1,403,118
Operating & Maintenance Expenses Remove Economies of Scale LESS: EOS - Wages & Benefits				1%		2%
Remove Economies of Scale LESS: EOS - Wages & Benefits						
LESS: EOS - Wages & Benefits	727,131	741,674	756,507	771,638	787,070	802,812
	•	•	•	•		•
	(53,633)	(54,706)	(55,800)	(56,916)	(58,054)	(59,215)
LESS: EOS - Professional Services	(30,714)	(31,328)	(31,955)	(32,594)	(33,246)	(33,911)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
ADD: PURTA & Reg Assessment	14,995	15,022	15,160	15,189	15,331	15,360
Operating Expenses Before Depreciation	657,779	670,662	683,913	697,317	711,102	725,046
Depreciation (2)	177,452	180,454	183,506	186,610	189,766	192,976
Total Operating Expenses	835,231	851,116	867,419	883,927	900,868	918,022
Operating Income	477,638	486,933	476,329	485,598	474,492	485,096
_						
Revenues (3)	1,312,869	1,338,049	1,343,748	1,369,525	1,375,360	1,403,118
EBITDA (4)	655,090	667,387	659,835	672,208	664,258	678,072
EBIT (5)	477,638	486,933	476,329	485,598	474,492	485,096
EBIT	477,638	486,933	476,329	485,598	474,492	485,096
(-) Income Taxes	137,990	140,675	137,612	140,289	137,081	140,144
Die No	220 (10	246.250	220 515	245.200	227 ***	244.055
Debt Free Net Income	339,648	346,258	338,717	345,309	337,411	344,952
(+) Depreciation & Amortization	177,452	180,454	183,506	186,610	189,766	192,976
(-) Capital Expenditures (6)	174,463	177,414	180,414	183,466	186,569	189,725
(-) Changes in Working Capital (7)	919	937	941	959	963	982
Debt Free Net Cash Flow	\$341,718	\$348,361	\$340,868	\$347,494	\$339,646	\$347,221
PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
Present Value Factor: 5.95% (8)	0.6118	0.5775	0.5451	0.5144	0.4856	0.4583
Present Value Debt Free Net Cash Flow	\$209,063	\$201,179	\$185,807	\$178,751	\$164,932	\$159,131
Present Value Factor: 7.16% (9)	0.5555	0.5184	0.4838	0.4515	0.4213	0.3932
Present Value Debt Free Net Cash Flow	\$189,824	\$180,590	\$164,912	\$156,894	\$143,093	\$136,527
Present Value Factor: 5.75% (8)	0.6218	0.5879	0.5560	0.5257	0.4972	0.4701
Present Value Debt Free Net Cash Flow	\$212,480	\$204,802	\$189,523	\$182,678	\$168,872	\$163,229
Present Value Factor: 6.96% (9)	0.5644	0.5277	0.4934	0.4613	0.4313	0.4032
Present Value Debt Free Net Cash Flow	\$192,865	\$183,830	\$168,184	\$160,299	\$146,489	\$139,999

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#### Income Approach

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
	2035	<u>2036</u>	<u>2037</u>	2038	2039	2040
OPERATING REVENUES (1)						
Charges for services	1,396,497	1,402,502	1,431,069	1,437,223	1,466,497	1,472,803
Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0	0	0
Other (Rate Increase)	1 400 007	22,440	1 442 ((0	22,996	1 470 007	25,038
Total Operating Revenues	1,409,097	1,437,542	1,443,669	1,472,819	1,479,097	1,510,441
Rate Increase		2%		2%		2%
OPERATING EXPENSES (1)						
Operating & Maintenance Expenses	818,868	835,245	851,950	868,989	886,369	904,096
Remove Economies of Scale						
LESS: EOS - Wages & Benefits	(60,400)	(61,608)	(62,840)	(64,096)	(65,378)	(66,686)
LESS: EOS - Professional Services	(34,589)	(35,281)	(35,986)	(36,706)	(37,440)	(38,189)
LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
ADD: Additional O&M	0	0	0	0	0	0
ADD: PURTA & Reg Assessment	15,513	15,542	15,700	15,729	15,890	15,921
Operating Expenses Before Depreciation	739,393	753,899	768,824	783,916	799,441	815,143
Depreciation (2)	196,240	199,559	202,934	206,367	209,858	213,407
<b>Total Operating Expenses</b>	935,633	953,459	971,759	990,283	1,009,299	1,028,550
Operating Income	473,464	484,083	471,910	482,536	469,798	481,891
Revenues (3)	1,409,097	1,437,542	1,443,669	1,472,819	1,479,097	1,510,441
EBITDA (4)	669,704	683,643	674,845	688,903	679,656	695,298
EBIT (5)	473,464	484,083	471,910	482,536	469,798	481,891
EBIT	473,464	484,083	471,910	482,536	469,798	481,891
(-) Income Taxes	136,784	139,852	136,335	139,405	135,725	139,218
Debt Free Net Income	336,680	344,231	335,575	343,131	334,073	342,673
(+) Depreciation & Amortization	196,240	199,559	202,934	206,367	209,858	213,407
(+) Depreciation & Amortization (-) Capital Expenditures (6)	192,934	199,339	199,516	200,367	209,838	209,812
(-) Changes in Working Capital (7)	986	1,006	1,011	1,031	1,035	1,057
	<u> </u>					
Debt Free Net Cash Flow	\$339,000	\$346,587	\$337,983	\$345,577	\$336,574	\$345,211
PV Time Period (mid-year)		15.5	16.5	17.5	18.5	19.5
Present Value Factor: 5.95% (8)	0.4325	0.4083	0.3853	0.3637	0.3433	0.3240
Present Value Debt Free Net Cash Flow	\$146,617	\$141,512	\$130,225	\$125,686	\$115,546	\$111,848
Present Value Factor: 7.16% (9)	0.3669	0.3424	0.3195	0.2981	0.2782	0.2596
Present Value Debt Free Net Cash Flow	\$124,379	\$118,672	\$107,986	\$103,017	\$93,635	\$89,617
Present Value Factor: 5.75% (8)	0.4446	0.4204	0.3975	0.3759	0.3555	0.3361
Present Value Debt Free Net Cash Flow	\$150,719	\$145,705	\$134,348	\$129,902	\$119,652	\$116,025
Present Value Factor: 6.96% (9)	0.3770	0.3524	0.3295	0.3081	0.2880	0.2693
Present Value Debt Free Net Cash Flow	\$127,803	\$122,137	\$111,365	\$106,472	\$96,933	\$92,965

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated
Т	Year 21	Year 22	Year 23	Year 24
	2041	2042	2043	2044
OPERATING REVENUES (1)				
Charges for services	1,504,281	1,510,750	1,544,556	1,551,198
Other operating revenue	12,600	12,600	12,600	12,600
Tap Fees	0	0	0	0
Other (Rate Increase)	0	27,193	0	29,473
Total Operating Revenues	1,516,881	1,550,543	1,557,156	1,593,271
Rate Increase		2%		2%
OPERATING EXPENSES (1)				
Operating & Maintenance Expenses	922,178	940,622	959,434	978,623
Remove Economies of Scale				
LESS: EOS - Wages & Benefits	(68,020)	(69,380)	(70,768)	(72,183)
LESS: EOS - Professional Services	(38,953)	(39,732)	(40,526)	(41,337)
LESS: EOS - Eliminated Expenses	0	0	0	0
ADD: Additional O&M	0	0	0	0
ADD: PURTA & Reg Assessment	16,094	16,125	16,312	16,344
Operating Expenses Before Depreciation	831,300	847,635	864,452	881,447
Depreciation (2)	217,016	220,688	224,420	228,216
Total Operating Expenses	1,048,316	1,068,323	1,088,872	1,109,663
_	460.565	102 220	460.204	402 (00
Operating Income	468,565	482,220	468,284	483,608
Revenues (3)	1,516,881	1,550,543	1,557,156	1,593,271
EBITDA (4)	685,581	702,908	692,704	711,824
EBIT (5)	468,565	482,220	468,284	483,608
EBIT	468,565	482,220	468,284	483,608
(-) Income Taxes	135,368	139,313	135,287	139,714
Debt Free Net Income	222 107	242 007	222 007	2/2 90/
	333,197 217,016	342,907	332,997	343,894 228,216
(+) Depreciation & Amortization (-) Capital Expenditures (6)	217,016	220,688 216,969	224,420 220,639	224,371
(-) Capital Expenditures (6) (-) Changes in Working Capital (7)	1,062	1,085	1,090	1,115
() enuige in Wolling capital (/)	1,002	1,000	1,000	1,110
Debt Free Net Cash Flow	\$335,791	\$345,540	\$335,688	\$346,624
PV Time Period (mid-year)	20.5	21.5	22.5	23.5
Present Value Factor: 5.95% (8)	0.3058	0.2886	0.2724	0.2571
Present Value Debt Free Net Cash Flow	\$102,685	\$99,723	\$91,441	\$89,117
Present Value Factor: 7.16% (9)	0.2423	0.2261	0.2110	0.1969
Present Value Debt Free Net Cash Flow	\$81,362	\$78,127	\$70,830	\$68,250
Present Value Factor: 5.75% (8)	0.3179	0.3006	0.2842	0.2688
Present Value Debt Free Net Cash Flow	\$106,748	\$103,869	\$95,402	\$93,172
Present Value Factor: 6.96% (9)	0.2517	0.2354	0.2200	0.2057
(*)				

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Terminal
	Value
Projected Debt Free Net Cash Flow (10)	\$346,624
Divided by Capitalization Factor (8)	5.95%
24th Year Terminal Value	5,825,605
24th Year Present Value Factor (11)	0.2571
Present Value of Terminal Value	1,497,763
Present Value Debt Free Net	
Cash Flow for 24 Years	4,229,046
Indicated Value	\$5,726,809

DCF With EBIT & EBITDA Ter	rminal Value Mod	lel - Discount Rate	of 5.95%
			Terminal
		Multiples (13)	Value
Projected EBIT	\$483,608	27.4	\$13,250,855
Projected EBITDA	711,824	19.4	13,809,382
Weighted (1/3 EBIT 2/3 EBITDA) Termin	13,625,068		
24th Year Present Value Factor (11)			0.2571
Present Value of Terminal Value			3,503,005
Present Value Debt Free Net			
Cash Flow for 24 Years			4,229,046
Indicated Value			\$7,732,051
		•	

	Terminal	
	Value	
Projected Debt Free Net Cash Flow (10)	\$346,624	
Divided by Capitalization Factor (9)	7.16%	
24th Year Terminal Value	4,841,110	
24th Year Present Value Factor (12)	0.1969	
Present Value of Terminal Value	953,215	
Present Value Debt Free Net		
Cash Flow for 24 Years	3,794,433	
ndicated Value	\$4,747,647	

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 7.16%						
			Terminal			
		Multiples (13)	Value			
Projected EBIT	\$483,608	27.4	\$13,250,855			
Projected EBITDA	711,824	19.4	13,809,382			
Weighted (1/3 EBIT 2/3 EBITDA) Term	13,625,068					
24th Year Present Value Factor (12)		_	0.1969			
Present Value of Terminal Value			2,682,776			
Present Value Debt Free Net						
Cash Flow for 24 Years		_	3,794,433			
Indicated Value		<u>-</u>	\$6,477,209			

	Terminal
	Value
Projected Debt Free Net Cash Flow (10)	\$346,624
Divided by Capitalization Factor (8)	5.75%
24th Year Terminal Value	6,028,235
24th Year Present Value Factor (11)	0.2571
Present Value of Terminal Value	1,549,859
Present Value Debt Free Net	
Cash Flow for 24 Years	4,229,046
Indicated Value	\$5,778,905

	1 CHIIIIIai
	Value
Projected Debt Free Net Cash Flow (10)	\$346,624
Divided by Capitalization Factor (9)	6.96%
24th Year Terminal Value	4,980,223
24th Year Present Value Factor (12)	0.1969
Present Value of Terminal Value	980,606
Present Value Debt Free Net	
Cash Flow for 24 Years	3,794,433
Indicated Value	\$4,775,039

DCF With Capitalization of Terminal Value Model @ 6.96%

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

#### Notes: (1) Assumptions:

Charges for services - Pre-2021 are actual or budget. Post-2020 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by IOU at end of 2020 with shown rate increases.

OPERATING EXPENSES - increase at 2.0% annually after 2020 unless noted elsewhere. Assumed economies of scale are shown on lines below. Wages & Benefits - Post-2020 assumed 15% savings due to economies of scale. Increase at 2.0% afterwards.

Professional Services - Post-2020 assumed 50% savings due to economies of scale. Increase at 2.0% afterwards.

No Additional O&M.\

PURTA & Reg Assessment - 2021 assumed due to IOU purchase at the end of 2020.

- (2) Depreciation Pre-2021 based on actual depreciation rate plus same rate on half of CAPX. Post-2020 based on depreciation rate plus same rate on half of CAPX.
- (3) Line 6.
- (4) Line 19 + line 17.
- (5) Line 19.
- (6) Capital Expenditures Pre-2021 based on financials/budget. Post-2020 years are estimates at 1.99% of prior year-end GROSS Property, plant and equipment.
- (7) Changes in Working Capital based on water industry 0.07% of revenues.
- (8) Discount rate is the current lower end of the IOU discount rate. Capitalization rate ( K ) at 3/31/2020 adjusted for stated growth ( g ) where capitalization rate = K g.
- (9) Discount rate is the current upper end of the IOU discount rate. Capitalization rate (K) at 3/31/2020 adjusted for stated growth (g) where capitalization rate = K - g.
- (10) Final year shown, line 29.
- (11) Final year shown, line 31.
- (12) Final year shown, line 33.
- (13) Developed on Market Multiples EXHIBIT 17.

#### Terms:

**CAPX** - Capital Expenditures

CIP - Capital improvement plan

Dep - Depreciation expense

GROSS PPE - GROSS Property, plant and equipment

IOU - Investor owned utility

MUNI - Large regional municipally owned utility

NET PPE - NET Property, plant and equipment

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

		Г	Budget	Budget	Estimated	Estimated
	Actua	1		Year 0	Year 1	Year 2
	2017	2018	2019	2020	2021	2022
1. OPERATING REVENUES (1)	<u> </u>	<del></del>	<del></del>	<del></del>		<del></del>
2. Charges for services	797,521	778,908	841,800	841,800	842,590	842,853
3. Other operating revenue	0	0	21,200	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	842,853
6. Total Operating Revenues	797,521	778,908	863,000	854,400	855,190	1,698,306
7. Rate Increase						100%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	534,843	585,661	582,635	608,431	620,600	633,012
10. Remove Economies of Scale	/	,	,	, .	,	,-
11. LESS: EOS - Wages & Benefits	0	0	0	0	(45,775)	(46,691)
12. LESS: EOS - Professional Services	0	0	0	0	(26,214)	(26,738)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. Operating Expenses Before Depreciation	534,843	585,661	582,635	608,431	548,610	559,583
16. Depreciation (2)	166,468	166,649	0	718,132	722,387	732,782
17. Total Operating Expenses	701,311	752,310	582,635	1,326,563	1,270,997	1,292,364
18. Operating Income	96,210	26,598	280,365	(472,163)	(415,807)	405,942
19. Revenues (3)	797,521	778,908	863,000	854,400	855,190	1,698,306
20. EBITDA (4)	262,678	193,247	280,365	245,969	306,580	1,138,723
21. EBIT (5)	96,210	26,598	280,365	(472,163)	(415,807)	405,942
22. EBIT	96,210	26,598	280,365	(472,163)	(415,807)	405,942
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	96,210	26,598	280,365	(472,163)	(415,807)	405,942
25. (+) Depreciation & Amortization	166,468	166,649	0	718,132	722,387	732,782
26. (-) Capital Expenditures (6)	10,952	51,054	0	0	710,950	721,181
27. (-) Changes in Working Capital (7)	558	545	604	598	599	1,189
28. Debt Free Net Cash Flow	\$251,168	\$141,648	\$279,761	\$245,371	(\$404,969)	\$416,354
29. PV Time Period (mid-year)			<u> </u>	(0.5)	0.5	1.5
· · ·					1	2
30. Present Value Factor: 3.70% (8)					0.9820	0.9470
31. Present Value Debt Free Net Cash Flow				_	(\$397,680)	\$394,287
				=	1	2
32. Present Value Factor: 3.50% (9)					0.9829	0.9497
33. Present Value Debt Free Net Cash Flow				_	(\$398,044)	\$395,411

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
ľ	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	2028
1. OPERATING REVENUES (1)						
2. Charges for services	1,686,758	1,690,966	1,698,291	1,773,817	1,781,445	1,789,105
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	67,932	0	0	71,564
6. Total Operating Revenues	1,699,358	1,703,566	1,778,823	1,786,417	1,794,045	1,873,269
7. Rate Increase			4%			4%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	645,672	658,585	671,757	685,192	698,896	712,874
<ul><li>10. Remove Economies of Scale</li></ul>	043,072	030,303	0/1,/3/	003,172	070,070	/12,0/4
11. LESS: EOS - Wages & Benefits	(47,625)	(48,577)	(49,549)	(50,540)	(51,550)	(52,581)
12. LESS: EOS - Professional Services	(27,273)	(27,819)	(28,375)	(28,942)	(29,521)	(30,112)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. Operating Expenses Before Depreciation	570,774	582,190	593,833	605,710	617,824	630,181
16. Depreciation (2)	743,326	754,023	764,872	775,879	787,044	798,369
17. Total Operating Expenses	1,314,101	1,336,212	1,358,706	1,381,589	1,404,868	1,428,549
	)- , ·	,,	, ,	<i>y= - y</i>	, - ,	
18. Operating Income	385,257	367,354	420,117	404,828	389,177	444,720
19. Revenues (3)	1,699,358	1,703,566	1,778,823	1,786,417	1,794,045	1,873,269
20. EBITDA (4)	1,128,584	1,121,376	1,184,990	1,180,707	1,176,221	1,243,088
21. EBIT (5)	385,257	367,354	420,117	404,828	389,177	444,720
` '						
22. EBIT	385,257	367,354	420,117	404,828	389,177	444,720
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	385,257	367,354	420,117	404,828	389,177	444,720
25. (+) Depreciation & Amortization	743,326	754,023	764,872	775,879	787,044	798,369
26. (-) Capital Expenditures (6)	731,558	742,085	752,764	763,596	774,583	785,729
27. (-) Changes in Working Capital (7)	1,190	1,192	1,245	1,250	1,256	1,311
20 Die Nichel	#205 P26	¢270.000	¢420.000	0415.060	£400.202	Ø456.040
28. Debt Free Net Cash Flow	\$395,836	\$378,099	\$430,980	\$415,860	\$400,382	\$456,048
PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
20 B (VI E / 2700/ (0)	3	4	5	6	7	8
30. Present Value Factor: 3.70% (8)	0.9132	0.8806	0.8492	0.8189	0.7897	0.7615
31. Present Value Debt Free Net Cash Flow	\$361,478	\$332,954	\$365,989	\$340,548	\$316,182	\$347,280
•	3	4	5	6	7	8
32. Present Value Factor: 3.50% (9)	0.9176	0.8866	0.8566	0.8276	0.7996	0.7726
33. Present Value Debt Free Net Cash Flow	\$363,219	\$335,222	\$369,178	\$344,166	\$320,145	\$352,343

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Г	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Γ	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
_	2029	2030	2031	2032	2033	2034
1. OPERATING REVENUES (1)						
2. Charges for services	1,868,670	1,876,705	1,960,166	1,968,595	2,036,371	2,045,128
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	75,068	0	59,058	0	30,677
6. Total Operating Revenues	1,881,270	1,964,373	1,972,766	2,040,253	2,048,971	2,088,405
7. Rate Increase		4%		3%		2%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	727,131	741,674	756,507	771,638	787,070	802,812
10. Remove Economies of Scale	ŕ	ŕ	ŕ	ŕ	ŕ	
11. LESS: EOS - Wages & Benefits	(53,633)	(54,706)	(55,800)	(56,916)	(58,054)	(59,215)
12. LESS: EOS - Professional Services	(30,714)	(31,328)	(31,955)	(32,594)	(33,246)	(33,911)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. Operating Expenses Before Depreciation	642,784	655,640	668,753	682,128	695,771	709,686
16. Depreciation (2)	809,857	821,511	833,332	845,323	857,486	869,826
17. Total Operating Expenses	1,452,642	1,477,151	1,502,084	1,527,451	1,553,257	1,579,512
18. Operating Income	428,628	487,222	470,682	512,802	495,714	508,893
18. Operating frictine	420,020	467,222	470,082	312,802	493,/14	300,093
19. Revenues (3)	1,881,270	1,964,373	1,972,766	2,040,253	2,048,971	2,088,405
20. EBITDA (4)	1,238,486	1,308,733	1,304,013	1,358,125	1,353,200	1,378,719
<b>21</b> . EBIT (5)	428,628	487,222	470,682	512,802	495,714	508,893
22. EBIT	428,628	487,222	470,682	512,802	495,714	508,893
23. (-) Income Taxes	0	0	0	0	0	0
_		-	-	-	-	
24. Debt Free Net Income	428,628	487,222	470,682	512,802	495,714	508,893
25. (+) Depreciation & Amortization	809,857	821,511	833,332	845,323	857,486	869,826
26. (-) Capital Expenditures (6)	797,036	808,505	820,139	831,940	843,912	856,055
27. (-) Changes in Working Capital (7)	1,317	1,375	1,381	1,428	1,434	1,462
28. Debt Free Net Cash Flow	\$440,133	\$498,853	\$482,493	\$524,757	\$507,854	\$521,202
29. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
	9	10	11	12	13	14
30. Present Value Factor: 3.70% (8)	0.7343	0.7081	0.6828	0.6585	0.6350	0.6123
31. Present Value Debt Free Net Cash Flow	\$323,189	\$353,238	\$329,446	\$345,552	\$322,487	\$319,132
=	9	10	11	12	13	14
32. Present Value Factor: 3.50% (9)	0.7465	0.7212	0.6968	0.6733	0.6505	0.6285
33. Present Value Debt Free Net Cash Flow	\$328,559	\$359,773	\$336,201	\$353,319	\$330,359	\$327,576
=	4520,557	4557,113	4550,201	4555,517	4550,557	Ψ521,510

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Г	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Γ	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
_	<u>2035</u>	2036	2037	2038	2039	2040
1. OPERATING REVENUES (1)						
2. Charges for services	2,084,731	2,093,695	2,134,238	2,143,416	2,184,922	2,194,317
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	31,405	0	32,151	0	32,915
6. Total Operating Revenues	2,097,331	2,137,700	2,146,838	2,188,167	2,197,522	2,239,832
7. Rate Increase		1%		1%		2%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	818,868	835,245	851,950	868,989	886,369	904,096
10. Remove Economies of Scale	010,000	055,2.5	051,550	000,505	000,505	,,,,,
11. LESS: EOS - Wages & Benefits	(60,400)	(61,608)	(62,840)	(64,096)	(65,378)	(66,686)
12. LESS: EOS - Professional Services	(34,589)	(35,281)	(35,986)	(36,706)	(37,440)	(38,189)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. Operating Expenses Before Depreciation	723,880	738,357	753,124	768,187	783,551	799,222
16. Depreciation (2)	882,343	895,039	907,918	920,983	934,235	947,678
17. Total Operating Expenses	1,606,222	1,633,396	1,661,043	1,689,170	1,717,786	1,746,900
•						
18. Operating Income	491,109	504,304	485,795	498,997	479,736	492,932
19. Revenues (3)	2,097,331	2,137,700	2,146,838	2,188,167	2,197,522	2,239,832
20. EBITDA (4)	1,373,451	1,399,343	1,393,714	1,419,980	1,413,971	1,440,610
21. EBIT (5)	491,109	504,304	485,795	498,997	479,736	492,932
	,	,	,	,	.,,,,,	,
22. EBIT	491,109	504,304	485,795	498,997	479,736	492,932
23. (-) Income Taxes	0	0	0	0	0	0
24. Debt Free Net Income	491,109	504,304	485,795	498,997	479,736	492,932
25. (+) Depreciation & Amortization	882,343	895,039	907,918	920,983	934,235	947,678
26. (-) Capital Expenditures (6)	868,374	880,869	893,545	920,983	934,233	932,676
27. (-) Changes in Working Capital (7)	1,468	1,496	1,503	1,532	1,538	1,568
	1,400	1,470	1,303	1,332	1,556	1,500
28. Debt Free Net Cash Flow	\$503,609	\$516,977	\$498,666	\$512,046	\$492,988	\$506,366
29. PV Time Period (mid-year)	14.5	15.5	16.5	17.5	18.5	19.5
	15	16	17	18	19	20
30. Present Value Factor: 3.70% (8)	0.5905	0.5694	0.5491	0.5295	0.5106	0.4924
31. Present Value Debt Free Net Cash Flow	\$297,381	\$294,367	\$273,817	\$271,129	\$251,720	\$249,335
<del>-</del>	15	16	17	18	19	20
32. Present Value Factor: 3.50% (9)	0.6072	0.5867	0.5669	0.5477	0.5292	0.5113
33. Present Value Debt Free Net Cash Flow	\$305,792	\$303,311	\$282,694	\$280,448	\$260,889	\$258,905
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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Γ	Estimated	Estimated	Estimated	Estimated
	Year 21	Year 22	Year 23	Year 24
_	2041	2042	2043	2044
1. OPERATING REVENUES (1)				
2. Charges for services	2,236,809	2,246,427	2,294,440	2,304,306
3. Other operating revenue	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0
5. Other (Rate Increase)	0	38,189	0	41,478
6. Total Operating Revenues	2,249,409	2,297,216	2,307,040	2,358,384
7. Rate Increase		2%		2%
8. OPERATING EXPENSES (1)				
9. Operating & Maintenance Expenses	922,178	940,622	959,434	978,623
10. Remove Economies of Scale				
11. LESS: EOS - Wages & Benefits	(68,020)	(69,380)	(70,768)	(72,183)
12. LESS: EOS - Professional Services	(38,953)	(39,732)	(40,526)	(41,337)
13. LESS: EOS - Eliminated Expenses	0	0	0	0
14. ADD: Additional O&M	0	0	0	0
15. Operating Expenses Before Depreciation	815,206	831,510	848,140	865,103
16. Depreciation (2)	961,315	975,149	989,181	1,003,414
17. Total Operating Expenses	1,776,522	1,806,659	1,837,321	1,868,517
18. Operating Income	472,887	490,557	469,719	489,867
19. Revenues (3)	2,249,409	2,297,216	2,307,040	2,358,384
20. EBITDA (4)	1,434,203	1,465,706	1,458,900	1,493,281
<b>21.</b> EBIT (5)	472,887	490,557	469,719	489,867
22. EBIT	472,887	490,557	469,719	489,867
23. (-) Income Taxes	0	0	0	0
24. Debt Free Net Income	472,887	490,557	469,719	489,867
25. (+) Depreciation & Amortization	961,315	975,149	989,181	1,003,414
26. (-) Capital Expenditures (6)	946,097	959,711	973,521	987,529
27. (-) Changes in Working Capital (7)	1,575	1,608	1,615	1,651
28. Debt Free Net Cash Flow	\$486,531	\$504,387	\$483,764	\$504,101
29. PV Time Period (mid-year)	20.5	21.5	22.5	23.5
· · ·	21	22	23	24
<b>30.</b> Present Value Factor: 3.70% (8)	0.4748	0.4579	0.4415	0.4258
31. Present Value Debt Free Net Cash Flow	\$231,005	\$230,959	\$213,582	\$214,646
=	21	22	23	24
32. Present Value Factor: 3.50% (9)	0.4940	0.4773	0.4611	0.4456
33. Present Value Debt Free Net Cash Flow	\$240,346	\$240,744	\$223,063	\$224,627
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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal Value Model @ 3.70%				
	Terminal			
	Value			
Projected Debt Free Net Cash Flow (10)	\$504,101			
Divided by Capitalization Factor (8)	3.70%			
24th Year Terminal Value	13,624,349			
24th Year Present Value Factor (11)	0.4258			
Present Value of Terminal Value	5,801,248			
Present Value Debt Free Net				
Cash Flow for 24 Years	6,582,023			
Indicated Value	\$12,383,271			

DCF With EBIT & EBITDA Terminal Value Model - Discount Rate of 3.70%					
		Multiples (13)	Terminal <u>Value</u>		
Projected EBIT	\$489,867	27.4	\$13,422,344		
Projected EBITDA	1,493,281	19.4	28,969,647		
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			23,839,037		
24th Year Present Value Factor (11)		_	0.4258		
Present Value of Terminal Value			10,150,662		
Present Value Debt Free Net					
Cash Flow for 24 Years		_	6,582,023		
Indicated Value		=	\$16,732,685		

DCF With Capitalization of Termina	DCF With Capitalization of Terminal Value Model @ 3.50%				
	Terminal				
	Value				
Projected Debt Free Net Cash Flow (10)	\$504,101				
Divided by Capitalization Factor (9)	3.50%				
24th Year Terminal Value	14,402,884				
24th Year Present Value Factor (12)	0.4258				
Present Value of Terminal Value	6,132,748				
Present Value Debt Free Net					
Cash Flow for 24 Years	6,582,023				
Indicated Value	\$12,714,771				

	•	•	Terminal
		Multiples (13)	Value
Projected EBIT	\$489,867	27.4	\$13,422,344
Projected EBITDA	1,493,281	19.4	28,969,647
Weighted (1/3 EBIT 2/3 EBITDA) Terminal Value			23,839,037
24th Year Present Value Factor (12)		_	0.4258
Present Value of Terminal Value			10,150,662
Present Value Debt Free Net			
Cash Flow for 24 Years		_	6,582,023
Indicated Value			\$16,732,685

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#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With MUNI Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

#### Notes: (1) Assumptions:

Charges for services - Pre-2021 are actual or budget. Post-2020 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by MUNI at end of 2020 with shown rate increases.

OPERATING EXPENSES - increase at 2.0% annually after 2020 unless noted elsewhere. Assumed economies of scale are shown on lines below. Wages & Benefits - Post-2020 assumed 15% savings due to economies of scale. Increase at 2.0% afterwards.

Professional Services - Post-2020 assumed 50% savings due to economies of scale. Increase at 2.0% afterwards.

No Additional O&M.\

- (2) Depreciation Pre-2021 based on actual depreciation rate plus same rate on half of CAPX. Post-2020 based on depreciation rate plus same rate on half of CAPX.
- (3) Line 6.
- (4) Line 18 + line 16.
- (5) Line 18.
- (6) Capital Expenditures Pre-2021 based on financials/budget. Post-2020 years are estimates at 1.69% of prior year-end GROSS Property, plant and equipment.
- (7) Changes in Working Capital based on water industry 0.07% of revenues.
- (8) Discount rate is the the current MUNI discount rate. Capitalization rate (K) at 3/31/2020 equal to discount rate, where capitalization rate = K g.
- (9) Discount rate is the current MUNI discount rate. Capitalization rate ( K ) at 3/31/2020 adjusted for stated growth ( g ) where capitalization rate = K g.
- (10) Final year shown, line 28.
- (11) Final year shown, line 30.
- (12) Final year shown, line 30.
- (13) Developed on Market Multiples EXHIBIT 17.

#### Terms:

**CAPX** - Capital Expenditures

CIP - Capital improvement plan

Dep - Depreciation expense

GROSS PPE - GROSS Property, plant and equipment

IOU - Investor owned utility

MUNI - Large regional municipally owned utility

NET PPE - NET Property, plant and equipment

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#### Income Approach

		Г	Budget	Budget	Estimated	Estimated
F	Actual	l		Year 0	Year 1	Year 2
_	<u>2017</u>	<u>2018</u>	2019	2020	2021	2022
1. OPERATING REVENUES (1)						
2. Charges for services	797,521	778,908	841,800	841,800	842,590	842,853
3. Other operating revenue	0	0	21,200	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	0	0	0	0	1,179,994
6. Total Operating Revenues	797,521	778,908	863,000	854,400	855,190	2,035,447
7. Rate Increase						140%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	534,843	585,661	582,635	608,431	620,600	633,012
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	0	0	0	0	(45,775)	(46,691)
12. LESS: EOS - Professional Services	0	0	0	0	(26,214)	(26,738)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	0	0	0	0	22,163	22,151
16. Operating Expenses Before Depreciation	534,843	585,661	582,635	608,431	570,773	581,734
17. Depreciation (2)	166,468	166,649	0	718,132	722,387	732,782
18. Total Operating Expenses	701,311	752,310	582,635	1,326,563	1,293,160	1,314,515
_						
19. Operating Income	96,210	26,598	280,365	(472,163)	(437,970)	720,932
20. Revenues (3)	797,521	778,908	863,000	854,400	855,190	2,035,447
<b>21</b> . EBITDA (4)	262,678	193,247	280,365	245,969	284,417	1,453,713
22. EBIT (5)	96,210	26,598	280,365	(472,163)	(437,970)	720,932
23. EBIT	96,210	26,598	280,365	(472,163)	(437,970)	720,932
24. (-) Income Taxes	0	0	0	(136,408)	(126,530)	208,277
<del>-</del>						
25. Debt Free Net Income	96,210	26,598	280,365	(335,755)	(311,440)	512,655
26. (+) Depreciation & Amortization	166,468	166,649	0	718,132	722,387	732,782
27. (-) Capital Expenditures (6)	10,952	51,054	0	0	710,950	721,181
28. (-) Changes in Working Capital (7)	558	545	604	598	599	1,425
29. Debt Free Net Cash Flow	\$251,168	\$141,648	\$279,761	\$381,779	(\$300,602)	\$522,831
30. PV Time Period (mid-year)				(0.5)	0.5	1.5
31. Present Value Factor: 5.95% (8)				, ,	0.9715	0.9170
32. Present Value Debt Free Net Cash Flow					(\$292,035)	\$479,436
				_	1	2
<b>33.</b> Present Value Factor: 7.16% (9)					0.9660	0.9015
34. Present Value Debt Free Net Cash Flow				=	(\$290,381)	\$471,332
35. Present Value Factor: 5.75% (8)					1 0.9724	2 0.9196
36. Present Value Debt Free Net Cash Flow				_	(\$292,305)	\$480,795
37. Present Value Factor: 6.96% (9)					1 0.9669	2 0.9040
38. Present Value Debt Free Net Cash Flow				_	(\$290,652)	\$472,639
	See last nage of this l	EVHIRIT for not	os and assumption			

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### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
Ï	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
•	2023	2024	2025	<u>2026</u>	2027	2028
1. OPERATING REVENUES (1)						
2. Charges for services	2,024,109	2,029,159	2,037,949	2,456,055	2,466,616	2,477,222
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees  5. Other (Pete Ingress)	0	0	0	0	0	0
<ul><li>5. Other (Rate Increase)</li><li>6. Total Operating Revenues</li></ul>	2,036,709	2,041,759	407,590 2,458,139	2,468,655	2,479,216	49,544 2,539,366
	2,030,709	2,041,739	20%	2,400,033	2,479,210	2,339,300
7. Rate Increase			20%			2%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	645,672	658,585	671,757	685,192	698,896	712,874
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(47,625)	(48,577)	(49,549)	(50,540)	(51,550)	(52,581)
12. LESS: EOS - Professional Services	(27,273)	(27,819)	(28,375)	(28,942)	(29,521)	(30,112)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	28,850	28,840	28,852	31,204	31,246	31,289
16. Operating Expenses Before Depreciation	599,624	611,030	622,685	636,914	649,070	661,470
17. Depreciation (2)	743,326	754,023	764,872	775,879	787,044	798,369
18. Total Operating Expenses	1,342,951	1,365,052	1,387,558	1,412,793	1,436,114	1,459,838
19. Operating Income	693,758	676,707	1,070,581	1,055,862	1,043,102	1,079,528
20. Revenues (3)	2,036,709	2,041,759	2,458,139	2,468,655	2,479,216	2,539,366
21. EBITDA (4)	1,437,085	1,430,729	1,835,454	1,831,741	1,830,146	1,877,896
<b>22.</b> EBIT (5)	693,758	676,707	1,070,581	1,055,862	1,043,102	1,079,528
23. EBIT	693,758	676,707	1,070,581	1,055,862	1,043,102	1,079,528
24. (-) Income Taxes	200,427	195,501	309,291	305,039	301,352	311,876
		101.205				
25. Debt Free Net Income	493,331	481,206	761,290	750,823	741,750	767,652
26. (+) Depreciation & Amortization	743,326	754,023	764,872	775,879	787,044	798,369
27. (-) Capital Expenditures (6)	731,558	742,085	752,764	763,596	774,583	785,729
28. (-) Changes in Working Capital (7)	1,426	1,429	1,721	1,728	1,735	1,778
29. Debt Free Net Cash Flow	\$503,674	\$491,714	\$771,678	\$761,378	\$752,475	\$778,514
30. PV Time Period (mid-year)	2.5	3.5	4.5	5.5	6.5	7.5
31. Present Value Factor: 5.95% (8)	0.8655	0.8169	0.7710	0.7277	0.6868	0.6483
32. Present Value Debt Free Net Cash Flow	\$435,930	\$401,681	\$594,964	\$554,055	\$516,800	\$504,710
•	3	4	5	6	7	8
33. Present Value Factor: 7.16% (9)	0.8412	0.7850	0.7326	0.6836	0.6380	0.5953
34. Present Value Debt Free Net Cash Flow	\$423,691	\$385,996	\$565,331	\$520,478	\$480,079	\$463,449
•	3	4	5	6	7	8
35. Present Value Factor: 5.75% (8)	0.8696	0.8223	0.7776	0.7353	0.6953	0.6575
36. Present Value Debt Free Net Cash Flow	\$437,995	\$404,337	\$600,057	\$559,841	\$523,196	\$511,873
	3	4	5	6	7	8
37. Present Value Factor: 6.96% (9)	0.8452	0.7902	0.7388	0.6907	0.6457	0.6037
38. Present Value Debt Free Net Cash Flow	\$425,705	\$388,552	\$570,116	\$525,884	\$485,873	\$469,989
•						

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### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
•	2029	2030	2031	2032	2033	2034
1. OPERATING REVENUES (1)						
2. Charges for services	2,537,632	2,548,543	2,590,216	2,601,354	2,643,890	2,655,259
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
<ul><li>5. Other (Rate Increase)</li><li>6. Total Operating Revenues</li></ul>	2,550,232	30,583 2,591,726	2,602,816	31,216 2,645,170	2,656,490	26,553
	2,330,232		2,002,810		2,030,490	
7. Rate Increase		1%		1%		1%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	727,131	741,674	756,507	771,638	787,070	802,812
10. Remove Economies of Scale						
11. LESS: EOS - Wages & Benefits	(53,633)	(54,706)	(55,800)	(56,916)	(58,054)	(59,215)
12. LESS: EOS - Professional Services	(30,714)	(31,328)	(31,955)	(32,594)	(33,246)	(33,911)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	31,612	31,656	31,873	31,918	32,139	32,184
16. Operating Expenses Before Depreciation	674,396	687,296	700,626	714,046	727,910	741,870
17. Depreciation (2)	809,857	821,511	833,332	845,323	857,486	869,826
18. Total Operating Expenses	1,484,254	1,508,807	1,533,957	1,559,369	1,585,396	1,611,696
19. Operating Income	1,065,978	1,082,919	1,068,859	1,085,801	1,071,094	1,082,716
25. 5 Formung control	1,000,570	1,002,515	1,000,000	1,000,001	1,071,051	1,002,710
20. Revenues (3)	2,550,232	2,591,726	2,602,816	2,645,170	2,656,490	2,694,412
21. EBITDA (4)	1,875,836	1,904,430	1,902,190	1,931,124	1,928,580	1,952,542
<b>22.</b> EBIT (5)	1,065,978	1,082,919	1,068,859	1,085,801	1,071,094	1,082,716
23. EBIT	1,065,978	1,082,919	1,068,859	1,085,801	1,071,094	1,082,716
24. (-) Income Taxes	307,961	312,855	308,793	313,688	309,439	312,797
- · · (		,				
25. Debt Free Net Income	758,017	770,064	760,066	772,113	761,655	769,919
26. (+) Depreciation & Amortization	809,857	821,511	833,332	845,323	857,486	869,826
27. (-) Capital Expenditures (6)	797,036	808,505	820,139	831,940	843,912	856,055
28. (-) Changes in Working Capital (7)	1,785	1,814	1,822	1,852	1,860	1,886
29. Debt Free Net Cash Flow	\$769,053	\$781,256	\$771,436	\$783,644	\$773,370	\$781,804
30. PV Time Period (mid-year)	8.5	9.5	10.5	11.5	12.5	13.5
31. Present Value Factor: 5.95% (8)	0.6118	0.5775	0.5451	0.5144	0.4856	0.4583
<b>、</b> /						
32. Present Value Debt Free Net Cash Flow	\$470,507	\$451,175	\$420,510	\$403,107	\$375,548	\$358,301
	9	10	11	12	13	14
<b>33.</b> Present Value Factor: 7.16% (9)	0.5555	0.5184	0.4838	0.4515	0.4213	0.3932
34. Present Value Debt Free Net Cash Flow	\$427,209	\$405,003	\$373,221	\$353,815	\$325,821	\$307,405
O IN TRACES OF THE PROPERTY OF THE IN	9	10	11	12	13	14
35. Present Value Factor: 5.75% (8)	0.6218	0.5879	0.5560	0.5257	0.4972	0.4701
36. Present Value Debt Free Net Cash Flow	\$478,197	\$459,300	\$428,918	\$411,962	\$384,520	\$367,526
	9	10	11	12	13	14
37. Present Value Factor: 6.96% (9)	0.5644	0.5277	0.4934	0.4613	0.4313	0.4032
38. Present Value Debt Free Net Cash Flow	\$434,054	\$412,269	\$380,627	\$361,495	\$333,554	\$315,223
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### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

	Estimated	Estimated	Estimated	Estimated	Estimated	Estimated
	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
	2035	2036	2037	2038	2039	2040
1. OPERATING REVENUES (1)						
2. Charges for services	2,693,343	2,704,925	2,743,722	2,755,520	2,795,042	2,807,061
3. Other operating revenue	12,600	12,600	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0	0	0
5. Other (Rate Increase)	0	27,049	0	27,555	0	30,878
6. Total Operating Revenues	2,705,943	2,744,574	2,756,322	2,795,675	2,807,642	2,850,539
7. Rate Increase	2	1%		1%		1%
8. OPERATING EXPENSES (1)						
9. Operating & Maintenance Expenses	818,868	835,245	851,950	868,989	886,369	904,096
10. Remove Economies of Scale	,	,	,	,	Ź	,
11. LESS: EOS - Wages & Benefits	(60,400)	(61,608)	(62,840)	(64,096)	(65,378)	(66,686)
12. LESS: EOS - Professional Services	(34,589)	(35,281)	(35,986)	(36,706)	(37,440)	(38,189)
13. LESS: EOS - Eliminated Expenses	0	0	0	0	0	0
14. ADD: Additional O&M	0	0	0	0	0	0
15. ADD: PURTA & Reg Assessment	32,380	32,426	32,626	32,671	32,874	32,921
16. Operating Expenses Before Depreciation	756,260	770,783	785,750	800,858	816,425	832,143
17. Depreciation (2)	882,343	895,039	907,918	920,983	934,235	947,678
18. Total Operating Expenses	1,638,602	1,665,822	1,693,669	1,721,841	1,750,660	1,779,821
19. Operating Income	1,067,341	1,078,752	1,062,653	1,073,834	1,056,982	1,070,718
20. Pariamuss (2)	2 705 042	2 744 574	2.756.222	2 705 675	2,807,642	2 950 520
<ul><li>20. Revenues (3)</li><li>21. EBITDA (4)</li></ul>	2,705,943 1,949,683	2,744,574 1,973,791	2,756,322 1,970,572	2,795,675 1,994,817	1,991,217	2,850,539 2,018,396
22. EBIT (5)	1,067,341	1,973,791	1,062,653	1,073,834	1,056,982	1,070,718
22. EBH (3)	1,007,541	1,070,732	1,002,033	1,073,034	1,030,762	1,070,710
23. EBIT	1,067,341	1,078,752	1,062,653	1,073,834	1,056,982	1,070,718
24. (-) Income Taxes	308,355	311,652	307,000	310,231	305,362	309,330
25. Debt Free Net Income	758,986	767,100	755,653	763,603	751,620	761,388
26. (+) Depreciation & Amortization	882,343	895,039	907,918	920,983	934,235	947,678
27. (-) Capital Expenditures (6)	868,374	880,869	893,545	906,402	919,445	932,676
28. (-) Changes in Working Capital (7)	1,894	1,921	1,929	1,957	1,965	1,995
29. Debt Free Net Cash Flow	\$771,060	\$779,349	\$768,097	\$776,227	\$764,445	\$774,395
30. PV Time Period (mid-year)		15.5	16.5	17.5	18.5	19.5
31. Present Value Factor: 5.95% (8)	0.4325	0.4083	0.3853	0.3637	0.3433	0.3240
22 P (VI DIE N.C. I.E.	¢222.494	#210.200	#205.040	#202.214	<b>#262.424</b>	#250.004
32. Present Value Debt Free Net Cash Flow	\$333,484	\$318,208	\$295,948	\$282,314	\$262,434	\$250,904
33. Present Value Factor: 7.16% (9)	15 0.3669	16 0.3424	17 0.3195	18 0.2981	19 0.2782	20 0.2596
33. Trescut value ractor. 7.1070 (7)	0.5007	0.5424	0.3173	0.2701	0.2762	0.2370
34. Present Value Debt Free Net Cash Flow	\$282,902	\$266,849	\$245,407	\$231,393	\$212,669	\$201,033
	15	16	17	18	19	20
<b>35.</b> Present Value Factor: 5.75% (8)	0.4446	0.4204	0.3975	0.3759	0.3555	0.3361
36. Present Value Debt Free Net Cash Flow	\$342,813	\$327,638	\$305,319	\$291,784	\$271,760	\$260,274
	15	16	17	18	19	20
37. Present Value Factor: 6.96% (9)	0.3770	0.3524	0.3295	0.3081	0.2880	0.2693
38. Present Value Debt Free Net Cash Flow						

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### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

Г	Estimated	Estimated	Estimated	Estimated
T	Year 21	Year 22	Year 23	Year 24
_	2041	2042	2043	2044
1. OPERATING REVENUES (1)				
2. Charges for services	2,850,142	2,862,397	2,909,202	2,921,711
3. Other operating revenue	12,600	12,600	12,600	12,600
4. Tap Fees	0	0	0	0
5. Other (Rate Increase)	2.9(2.742	34,349	0	37,982
6. Total Operating Revenues	2,862,742	2,909,346	2,921,802	2,972,293
7. Rate Increase		1%		1%
8. OPERATING EXPENSES (1)				
9. Operating & Maintenance Expenses	922,178	940,622	959,434	978,623
10. Remove Economies of Scale				
11. LESS: EOS - Wages & Benefits	(68,020)	(69,380)	(70,768)	(72,183)
12. LESS: EOS - Professional Services	(38,953)	(39,732)	(40,526)	(41,337)
13. LESS: EOS - Eliminated Expenses	0	0	0	0
14. ADD: Additional O&M	0	0	0	0
15. ADD: PURTA & Reg Assessment	33,145	33,192	33,435	33,483
16. Operating Expenses Before Depreciation	848,351 961,315	864,702	881,575	898,586
<ul><li>17. Depreciation (2)</li><li>18. Total Operating Expenses</li></ul>	1,809,667	975,149 1,839,851	989,181 1,870,756	1,003,414
10. Total Operating Expenses	1,809,007	1,039,031	1,870,730	1,902,000
19. Operating Income	1,053,075	1,069,495	1,051,046	1,070,293
_				
20. Revenues (3)	2,862,742	2,909,346	2,921,802	2,972,293
21. EBITDA (4)	2,014,391	2,044,644	2,040,227	2,073,707
<b>22.</b> EBIT (5)	1,053,075	1,069,495	1,051,046	1,070,293
23. EBIT	1,053,075	1,069,495	1,051,046	1,070,293
24. (-) Income Taxes	304,234	308,977	303,647	309,208
25 - DAG NA	740.041	7(0.510	747.200	7(1,005
25. Debt Free Net Income	748,841	760,518	747,399	761,085
26. (+) Depreciation & Amortization	961,315 946,097	975,149	989,181	1,003,414 987,529
<ul><li>27. (-) Capital Expenditures (6)</li><li>28. (-) Changes in Working Capital (7)</li></ul>	2,004	959,711 2,037	973,521 2,045	2,081
28. (-) Changes in Working Capital (/)	2,004	2,037	2,043	2,061
29. Debt Free Net Cash Flow	\$762,056	\$773,919	\$761,013	\$774,889
30. PV Time Period (mid-year)	20.5	21.5	22.5	23.5
<b>31.</b> Present Value Factor: 5.95% (8)	0.3058	0.2886	0.2724	0.2571
32. Present Value Debt Free Net Cash Flow	\$233,037	\$223,353	\$207,300	\$199,224
=	21	22	23	24
33. Present Value Factor: 7.16% (9)	0.2423	0.2261	0.2110	0.1969
24. December Value Dalid Free Net Coals Floor	¢104 (46	6174.002	¢1.60.574	\$152.57 <i>(</i>
34. Present Value Debt Free Net Cash Flow	\$184,646	\$174,983	\$160,574	\$152,576
35. Present Value Factor: 5.75% (8)	21 0.3179	22 0.3006	23 0.2842	24 0.2688
36. Present Value Debt Free Net Cash Flow	\$242,258	\$232,640	\$216,280	\$208,290
-	21	22	23	24
<b>37.</b> Present Value Factor: 6.96% (9)	0.2517	0.2354	0.2200	0.2057
38. Present Value Debt Free Net Cash Flow	\$101 900	¢107 101	\$167.400	\$150.205
=	\$191,809	\$182,181	\$167,423	\$159,395

EXHIBIT 16 Page 6 of 7

#### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

DCF With Capitalization of Terminal V	DCF With Capitalization of Terminal Value Model @ 5.95%					
	Terminal					
	Value					
Projected Debt Free Net Cash Flow (10)	\$774,889					
Divided by Capitalization Factor (8)	5.95%					
24th Year Terminal Value	13,023,348					
24th Year Present Value Factor (11)	0.2571					
Present Value of Terminal Value	3,348,303					
Present Value Debt Free Net						
Cash Flow for 24 Years	8,280,894					
Indicated Value	\$11,629,196					

		Multiples (13)	Terminal <u>Value</u>
Projected EBIT	\$1,070,293	27.4	\$29,326,016
Projected EBITDA	2,073,707	19.4	40,229,912
Weighted (1/3 EBIT 2/3 EBITDA) Term	36,631,626		
24th Year Present Value Factor (11)		_	0.2571
Present Value of Terminal Value			9,417,991
Present Value Debt Free Net			
Cash Flow for 24 Years		_	8,280,894
Indicated Value			\$17,698,885

	Terminal
	Value
Projected Debt Free Net Cash Flow (10)	\$774,889
Divided by Capitalization Factor (9)	7.16%
24th Year Terminal Value	10,822,475
24th Year Present Value Factor (12)	0.1969
Present Value of Terminal Value	2,130,945
Present Value Debt Free Net	
Cash Flow for 24 Years	7,325,480
Indicated Value	\$9,456,425

			Terminal
		Multiples (13)	Value
Projected EBIT	\$1,070,293	27.4	\$29,326,016
Projected EBITDA	2,073,707	19.4	40,229,912
Weighted (1/3 EBIT 2/3 EBITDA) Term	36,631,626		
24th Year Present Value Factor (12)		_	0.1969
Present Value of Terminal Value			7,212,767
Present Value Debt Free Net			
Cash Flow for 24 Years		<del>-</del>	7,325,480
Indicated Value			\$14,538,247

	Terminal
	<u>Value</u>
Projected Debt Free Net Cash Flow (10)	\$774,889
Divided by Capitalization Factor (8)	5.75%
24th Year Terminal Value	13,476,334
24th Year Present Value Factor (11)	0.2571
Present Value of Terminal Value	3,464,765
Present Value Debt Free Net	
Cash Flow for 24 Years	8,280,894
Indicated Value	\$11,745,659

DCF With Capitalization of Terminal	DCF With Capitalization of Terminal Value Model @ 6.96%				
	Terminal				
	<u>Value</u>				
Projected Debt Free Net Cash Flow (10)	\$774,889				
Divided by Capitalization Factor (9)	6.96%				
24th Year Terminal Value	11,133,465				
24th Year Present Value Factor (12)	0.1969				
Present Value of Terminal Value	2,192,179				
Present Value Debt Free Net					
Cash Flow for 24 Years	7,325,480				
Indicated Value	\$9,517,659				

EXHIBIT 16 Page 7 of 7

### Income Approach

Borough of Royersford Wastewater System Assets
Pro Forma and Estimted Operations With IOU Ownership
DCF With Capitalization of Terminal Value Model and
DCF With EBIT & EBITDA Terminal Value Model

### Notes: (1) Assumptions:

Charges for services - Pre-2021 are actual or budget. Post-2020 based on customer growth (EDU) and average revenue per customer. Rate increases (Other rate increase line item) are added year after they occur.

Other (Rate Increase) - Assumed purchase by IOU at end of 2020 with shown rate increases.

OPERATING EXPENSES - increase at 2.0% annually after 2020 unless noted elsewhere. Assumed economies of scale are shown on lines below. Wages & Benefits - Post-2020 assumed 15% savings due to economies of scale. Increase at 2.0% afterwards.

Professional Services - Post-2020 assumed 50% savings due to economies of scale. Increase at 2.0% afterwards.

No Additional O&M.\

PURTA & Reg Assessment - 2021 assumed due to IOU purchase at the end of 2020.

- (2) Depreciation - Pre-2021 based on actual depreciation rate plus same rate on half of CAPX. Post-2020 based on depreciation rate plus same rate on half of CAPX.
- (3) Line 6.
- (4) Line 19 + line 17.
- (5) Line 19.
- (6) Capital Expenditures Pre-2021 based on financials/budget. Post-2020 years are estimates at 1.69% of prior year-end GROSS Property, plant and equipment.
- (7) Changes in Working Capital based on water industry 0.07% of revenues.
- (8) Discount rate is the current lower end of the IOU discount rate. Capitalization rate (K) at 3/31/2020 adjusted for stated growth (g) where capitalization rate = K - g.
- (9) Discount rate is the current upper end of the IOU discount rate. Capitalization rate (K) at 3/31/2020 adjusted for stated growth (g) where capitalization rate = K g.
- (10) Final year shown, line 29.
- (11) Final year shown, line 31.
- (12) Final year shown, line 33.
- (13) Developed on Market Multiples EXHIBIT 17.

### Terms:

CAPX - Capital Expenditures

CIP - Capital improvement plan

Dep - Depreciation expense

GROSS PPE - GROSS Property, plant and equipment

IOU - Investor owned utility

MUNI - Large regional municipally owned utility

NET PPE - NET Property, plant and equipment

EXHIBIT 17 Page 1 of 3

# Market Multiples Method Borough of Royersford Wastewater System Assets 2018 Operations Market Multiple Method

	<u>A</u>	<u>B</u>	<u>C</u>	$\frac{\underline{D}}{(\text{Col B} \times \text{Col C})}$	$\frac{\underline{E}}{(\text{Col A} \times \text{Col D})}$
		Comparison		Royersford's	
		Group's	Royersford's	Risk Adjusted	Royersford's
	Subject	Valuation	Growth &	Valuation	Market
	Company	Multiples	Risk	Multiples	Multiples
	Statistic (1)	3/31/2020	Adjustment	<u>3/31/2020</u>	<u>Valuation</u>
		Risk Adjusted Mult	tiple		1
1. Borough of Royersford Wastew	vater System Assets				
2. Investor Provided Capital	\$4,702,972	1.95	90.00%	1.76	\$8,277,231
3. Gross PP&E	\$7,666,493	1.33	102.00%	1.36	10,426,430
4. Net PP&E	\$5,453,064	1.73	102.00%	1.76	9,597,393
5. Revenues	\$863,000	8.02	90.00%	7.22	6,230,860
6. EBITDA	\$280,365	21.60	90.00%	19.44	5,450,296
7. EBIT	\$280,365	30.43	90.00%	27.39	7,679,197
8. Customers	1,596	\$9,216	100.00%	\$9,216	14,708,736
9. Population	5,154	\$2,677	100.00%	\$2,677	13,797,258
10.					
11. Average					\$9,520,925

Conclusion of Market Multiple Method Valuation						
		Low	<u>High</u>	Conclusion		
12.	Capital Items	\$8,277,231	\$10,426,430	\$9,351,831		
13.	(Items 3-4)					
14.	Income Statement Items	5,450,296	7,679,197	-		
15.	(Items 5 -7)					
16.	Demographics Items	13,797,258	14,708,736	14,252,997		
17.	(Item 8)					
			Conc	elusion \$11,802,414		

# <u>Market Multiples Method</u> Borough of Royersford Wastewater System Assets <u>Development of Market Multiples Method for the Market Multiples Method</u>

	Latest Quarter End			I	atest 12 Months		2019		3/31/2020
			Invest.						
	Gross PP&E	Net PP&E	Total	12 Mos.	12 Mos.	12 Mos. EBIT	Continue	D	Enterprise
L	(\$ Mill)	(\$ Mill)	Capital (\$ Mill)	Rev. (\$ Mill)	EBITDA (\$ Mill)	(\$ Mill)	Customers	Population	Value (\$ Mill)
	(\$ WIIII)	(\$ MIII)	(\$ WIII)	(\$ WIII)	(\$ MIII)	(\$ WIIII)			(\$ MIII)
American States Water Co	\$1,980.305	\$1,437.042	\$1,101.458	\$473.869	\$164.085	\$128.372	285,128	1,000,000	\$3,511.490
American Water Works Company Inc	\$24,044.000	\$18,335.000	\$15,678.000	\$3,610.000	\$1,802.000	\$1,220.000	3,434,000	15,000,000	\$31,126.337
Artesian Resources Corp	\$672.391	\$535.013	\$314.114	\$83.595	\$35.909	\$25.106	92,640	300,000	\$498.652
California Water Service Group	\$3,540.033	\$2,409.873	\$1,778.008	\$714.557	\$201.212	\$109.924	520,600	2,000,000	\$3,397.807
Essential Utilities, Inc.	\$8,214.803	\$6,358.657	\$6,978.773	\$889.692	\$513.717	\$357.241	1,026,704	3,000,000	\$11,201.474
Middlesex Water Co	\$893.664	\$722.044	\$589.563	\$134.598	\$50.150	\$34.318	120,000	400,000	\$1,311.783
SJW Corp.	\$3,192.780	\$2,230.343	\$2,313.062	\$420.482	\$138.578	\$70.089	386,607	1,604,442	\$3,056.183
York Water Company (The)	\$399.269	\$313.993	\$237.467	\$51.578	\$30.023	\$22.335	71,411	201,000	\$668.987
Average	\$5,367,156	\$4,042.746	\$3,623.806	\$797.296	\$366.959	\$245.923	742,136	2,938,180	\$6,846.589
Max	\$24,044.000	\$18,335.000	\$15,678.000	\$3,610.000	\$1,802.000	\$1,220.000	3,434,000	15,000,000	\$31,126.337
Min	\$399.269	\$313.993	\$237.467	\$51.578	\$30.023	\$22.335	71,411	201,000	\$498.652
Median	\$2,586.543	\$1,833.693	\$1,439.733	\$447.176	\$151.332	\$90.007	335,868	1,302,221	\$3,226.995
Modali	\$2,500.515	ψ1,055.075	ψ1,137.733	ψ117.170	ψ151.55 <u>2</u>	Ψ>0.007	333,000	1,502,221	ψ3,220.773
Γ			Г		. M. 16. 1 6				
-	Invest.	Gross	Net	nterprise Value as	a Multiple of				Population
	Capital	PP&E	PP&E	Rev.	EBITDA	EBIT	Customers	Population	Per Customer
-	(x)	(x)	(x)	(x)	(x)	(x)	(\$)	(\$)	
American States Water Co	3.19	1.77	2.44	7.41	21.40	27.35	\$12,315	\$3,511	3.51
American Water Works Company Inc	1.99	1.29	1.70	8.62	17.27	25.51	\$9,064	\$2,075	4.37
Artesian Resources Corp	1.59	0.74	0.93	5.97	13.89	19.86	\$5,383	\$1,662	3.24
California Water Service Group	1.91	0.96	1.41	4.76	16.89	30.91	\$6,527	\$1,699	3.84
Essential Utilities, Inc.	1.61	1.36	1.76	12.59	21.80	31.36	\$10,910	\$3,734	2.92
Middlesex Water Co	2.23	1.47	1.82	9.75	26.16	38.22	\$10,932	\$3,279	3.33
SJW Corp.	1.32	0.96	1.37	7.27	22.05	43.60	\$7,905	\$1,905	4.15
York Water Company (The)	2.82	1.68	2.13	12.97	22.28	29.95	\$9,368	\$3,328	2.81
Average	2.08	1.28	1.70	8.67	20.22	30.85	\$9,050	\$2,649	3.52
Max	3.19	1.77	2.44	12.97	26.16	43.60	\$12,315	\$3,734	4.37
Min	1.32	0.74	0.93	4.76	13.89	19.86	\$5,383	\$1,662	2.81
								~	

8.02

21.60

30.43

\$9,216

\$2,677

3.42

Median

1.95

1.33

1.73

# Market Multiples Method Borough of Royersford Wastewater System Assets Quantification of the Effective Risk/Growth Adjustments

	-			
		Net	Gross	Invest.
	L	PP&E	PP&E	Capital
Comparable Group Multiple	_	1.73	1.33	1.95
Ratio to Net PPE		-	76.88%	
Not Contributed Multiple (NPPE = ICAP mult.)		1.95	1.50	
Base Risk Factor	x	90%	90%	
Subject Company Adjusted Multiple	_	1.76	1.35	
Subject Company Adjusted Multiple		1.76	1.35	
Comparable Group Multiple	÷_	1.73	1.33	
Effective Risk/Growth Adjustment	_	102%	102%	
		•		

		Net PP&E	Gross PP&E
Plant Assets		100%	100%
Ratio of Known "Cost Free" Capital		26%	26%
Plant Assets Less Known "Cost Free" Capital	=	74%	74%
Comparable Group Multiple		1.73	1.33
Plant Assets Less Known "Cost Free" Capital	÷_	74%	74%
Mulitple Without "Cost Free" Capital	_	2.34	1.80
Base Risk Factor	X	90%	90%
Subject Company Adjusted Multiple	=	2.10	1.62
Subject Company Adjusted Multiple		2.10	1.62
Comparable Group Multiple	÷	1.73	1.33
Effective Risk/Growth Adjustment	_	121%	122%

		Rev.	EBITDA	EBIT
Comparable Group Multiple	_	8.02	21.60	30.43
Implied Capitalization Rate (1÷Multiple)		12.47%	4.63%	3.29%
(- ) Growth Adjustment		0.00%	0.00%	0.00%
Adjusted Capitalization Rate (k-G)		12.47%	4.63%	3.29%
Adjusted Multiple (1÷Adj, Cap. Rate))	_	8.02	21.60	30.43
Base Risk Factor	X	90%	90%	90%
Subject Company Adjusted Multiple	=	7.22	19.44	27.39
Subject Company Adjusted Multiple		7.22	19.44	27.39
Comparable Group Multiple	÷	8.02	21.60	30.43
Effective Risk/Growth Adjustment	_	90%	90%	90%

EXHIBIT 18 Page 1 of 4

# $\frac{Selected\ Transactions\ Method}{For\ Borough\ of\ Royersford\ Wastewater\ System\ Assets}$ $\frac{Summary}{}$

		<u>Median</u>	Mid-Point	<u>Value</u>
1. 2. 3.	Asset Items Ex-Ante (page 2) Ex-Post (page 3)	\$10,112,025 \$8,701,077	\$9,861,388 \$12,029,969	\$10,176,115
4. 5. 6.	Demographics Items Ex-Ante (page 2) Ex-Post (page 3)	\$13,207,092 \$13,207,092	\$14,403,478 \$14,403,478	\$13,805,285
7.			Indicated Value	\$11,990,700
8. 9. 10.	Asset Items Ex-Ante (page 2) Ex-Post (page 3)	\$10,112,025 \$8,805,743	\$9,861,388 \$9,334,755	\$9,528,478
11. 12. 13.	Demographics Items Ex-Ante (page 2) Ex-Post (page 3)	\$18,701,401 \$18,701,401	\$19,398,028 \$19,398,028	\$19,049,715
14.			Indicated Value	\$14,289,096
15. 16. 17.	Asset Items Ex-Ante (page 2) Ex-Post (page 3)	ns Companies NA \$8,131,410	NA \$12,029,969	\$10,080,690
18. 19. 20.	Demographics Items Ex-Ante (page 2) Ex-Post (page 3)	\$6,571,662 \$6,571,662	\$8,692,309 \$8,692,309	\$7,631,986
21.			Indicated Value	\$8,856,338

EXHIBIT 18 Page 2 of 4

# Selected Transactions Method - Ex-Ante For Borough of Royersford Wastewater System Assets Based on 2016 - 2019 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

						Selected 7	ransactions' Metr	ics			
Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Gross PP&E	Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
										·	
Municipal Authority of the City of Mckeesport	WW	INT	\$156,000,000	\$83,903,219	\$91,435,797	\$73,813,794	\$13,047,844	\$6,180,616	\$3,811,679	12,780	50,570
New Garden Township/Authority's WW System's Assets	WW	INT	\$29,500,000	\$23,001,140	\$25,988,330	\$17,967,319	\$2,261,294	\$907,386	\$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	\$75,100,000	\$43,501,755	\$60,847,250	\$36,113,701	\$4,418,775	\$2,487,775	\$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	\$22,500,000	NA	NA	NA	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	\$96,000,000	NA	NA	NA	\$7,735,788	\$4,660,967	\$4,660,967	8,984	27,609
Kane Borough Authority Wastewater System	WW	INT	\$17,560,000	\$10,809,115	\$20,265,926	\$8,897,773	\$1,433,978	\$684,830	\$181,672	2,026	4,645
Sadsbury Township Wastewater Utility	WW	C/D	\$9,250,000	NA	NA	NA	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	\$5,000,000	\$1,298,627	NA	NA	\$1,130,372	\$49,804	\$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	\$4,734,800	NA	NA	NA	\$753,857	\$151,916	\$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	ww	C/D	\$4,765,200	NA	NA	NA	\$1,193,055	(\$173,564)	(\$244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	ww	C/D	\$50,250,000	NA	NA	NA	\$9,290,500	\$4,506,168	\$4,506,168	10,219	37,841
East Norriton Township Wastewater System Assets	ww	C/D	\$21,000,000	\$4,055,138	NA	NA	\$3,320,000	\$612,827	\$612,827	4,966	14,296
							Subject Compar	ny's Metrics			
Borough of Royersford Wastewater System Assets			!	\$4,702,972	\$7,666,493	\$5,453,064	\$863,000	\$280,365	\$280,365	1,596	5,154
					G.1: . (		l.T. C. M				
Municipal Authority of the City of Mckeesport	ww	INT	\$12,199,825	\$8,744,165	\$13,079,920	\$11,524,648	\$10,318,026	ultiples Valuations \$7,076,469	\$11,474,455	\$19,481,690	\$15,899,22
Mullicipal Authority of the City of Mckeesport	VV VV	1111	\$12,199,623	50,744,105	\$15,079,920	\$11,524,046	\$10,518,020	\$7,070,409	911,4/4,433	\$17,761,090	\$13,099,22

			Subject Company's Selected Transactions Multiples Valuations								
Municipal Authority of the City of Mckeesport	WW	INT	\$12,199,825	\$8,744,165	\$13,079,920	\$11,524,648	\$10,318,026	\$7,076,469	\$11,474,455	\$19,481,690	\$15,899,229
New Garden Township/Authority's WW System's Assets	WW	INT	\$12,426,289	\$6,031,774	\$8,702,427	\$8,953,222	\$11,258,377	\$9,114,938	\$16,553,520	\$26,214,922	\$12,581,134
Limerick Township Wastewater System's Assets	WW	INT	\$14,791,988	\$8,119,056	\$9,462,278	\$11,339,882	\$14,667,255	\$8,463,551	\$23,562,457	\$22,130,650	\$20,590,776
Steelton Borough (Water) Authority	W	INT	\$17,037,877	NA	NA	NA	NA	NA	NA	\$14,526,699	\$19,549,056
Exeter Township Wastewater System Assets	WW	INT	\$11,446,852	NA	NA	NA	\$10,709,704	\$5,774,561	\$5,774,561	\$17,054,319	\$17,921,113
Kane Borough Authority Wastewater System	WW	INT	\$12,902,317	\$7,640,236	\$6,642,855	\$10,761,772	\$10,568,000	\$7,188,951	\$27,099,440	\$13,833,050	\$19,484,228
Sadsbury Township Wastewater Utility	WW	C/D	\$13,587,786	NA	NA	NA	NA	NA	NA	\$14,792,585	\$12,382,987
East Bradford Township Wastewater System Assets	WW	C/D	\$14,534,124	\$18,107,478	NA	NA	\$3,817,327	\$28,146,836	\$28,146,836	\$6,394,231	\$2,592,034
Township of Mahoning Water System Assets	W	C/D	\$8,165,705	NA	NA	NA	\$5,420,302	\$8,738,186	\$14,512,934	\$6,371,620	\$5,785,481
Township of Mahoning Sewer System Assets	WW	C/D	\$269,130	NA	NA	NA	\$3,446,922	(\$7,697,442)	(\$5,467,849)	\$5,241,392	\$5,822,627
Cheltenham Township Wastewater System Assets	WW	C/D	\$5,122,564	NA	NA	NA	\$4,667,752	\$3,126,457	\$3,126,457	\$7,848,028	\$6,844,124
East Norriton Township Wastewater System Assets	WW	C/D	\$10,558,069	\$24,354,883	NA	NA	\$5,458,735	\$9,607,385	\$9,607,385	\$6,749,094	\$7,570,929

 $Definitions:\ Where\ "INT"\ is\ "Fully\ Integrated\ Assets"\ and\ "C/D"\ is\ "Mostly\ Collection/Distribution\ Assets".$ 

Where "WW" is wastewater and "W" is water.

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# Selected Transactions Method - Ex-Post For Borough of Royersford Wastewater System Assets Based on 2016 - 2019 Acquisitions of Assets of Water or Sewer System, Without Discount for Customer Contributions

			Ex-Post Selected Transactions' Metrics								
Name	Service	System	Announced Purchase Price was:	Investor Provided Capital	Ex-POST - OCN - Gross PP&E	Ex-Post - OCNLD - Net PP&E	Revenues	EBITDA	EBIT	Customers	Population
		n.m	4156,000,000	#02.002.210	0100 221 550	#00.005.co	012.045.044	0.100.616	#2 011 6 <b>7</b> 0	12.700	50.550
Municipal Authority of the City of Mckeesport	WW	INT	\$156,000,000	\$83,903,219	\$108,231,570	\$80,085,602	\$13,047,844	\$6,180,616	\$3,811,679	12,780	50,570
New Garden Township/Authority's WW System's Assets	WW	INT	\$29,500,000	\$23,001,140	\$27,146,852	\$18,567,728	\$2,261,294	\$907,386	\$499,638	1,796	12,085
Limerick Township Wastewater System's Assets	WW	INT	\$75,100,000	\$43,501,755	\$63,480,402	\$46,153,867	\$4,418,775	\$2,487,775	\$893,600	5,416	18,798
Steelton Borough (Water) Authority	W	INT	\$22,500,000	NA	\$19,739,906	\$14,433,435	NA	NA	NA	2,472	5,932
Exeter Township Wastewater System Assets	WW	INT	\$96,000,000	NA	\$68,404,345	\$42,678,351	\$7,735,788	\$4,660,967	\$4,660,967	8,984	27,609
Kane Borough Authority Wastewater System	WW	INT	\$17,560,000	\$10,809,115	\$21,023,527	\$13,503,901	\$1,433,978	\$684,830	\$181,672	2,026	4,645
Sadsbury Township Wastewater Utility	WW	C/D	\$9,250,000	NA	\$7,480,601	\$6,128,876	NA	NA	NA	998	3,850
East Bradford Township Wastewater System Assets	WW	C/D	\$5,000,000	\$1,298,627	\$8,294,931	\$5,473,948	\$1,130,372	\$49,804	\$49,804	1,248	9,942
Township of Mahoning Water System Assets	W	C/D	\$4,734,800	NA	\$5,294,272	\$3,507,138	\$753,857	\$151,916	\$91,468	1,186	4,218
Township of Mahoning Sewer System Assets	WW	C/D	\$4,765,200	NA	\$4,931,649	\$3,234,859	\$1,193,055	(\$173,564)	(\$244,337)	1,451	4,218
Cheltenham Township Wastewater System Assets	WW	C/D	\$50,250,000	NA	\$19,818,216	\$15,408,458	\$9,290,500	\$4,506,168	\$4,506,168	10,219	37,841
East Norriton Township Wastewater System Assets	WW	C/D	\$21,000,000	\$4,055,138	\$16,916,212	\$9,251,450	\$3,320,000	\$612,827	\$612,827	4,966	14,296
							Subject Compan	y's Metrics			
Borough of Royersford Wastewater System Assets				\$4,702,972	\$7,666,493	\$5,453,064	\$863,000	\$280,365	\$280,365	1,596	5,154

				Ex-Post Subject Company's Selected Transactions Multiples Valuations							
Municipal Authority of the City of Mckeesport	WW	INT	\$11,833,284	\$8,744,165	\$11,050,130	\$10,622,109	\$10,318,026	\$7,076,469	\$11,474,455	\$19,481,690	\$15,899,229
New Garden Township/Authority's WW System's Assets	WW	INT	\$12,343,677	\$6,031,774	\$8,331,041	\$8,663,709	\$11,258,377	\$9,114,938	\$16,553,520	\$26,214,922	\$12,581,134
Limerick Township Wastewater System's Assets	WW	INT	\$14,434,571	\$8,119,056	\$9,069,785	\$8,873,040	\$14,667,255	\$8,463,551	\$23,562,457	\$22,130,650	\$20,590,776
Steelton Borough (Water) Authority	W	INT	\$12,828,719	NA	\$8,738,445	\$8,500,675	NA	NA	NA	\$14,526,699	\$19,549,056
Exeter Township Wastewater System Assets	WW	INT	\$11,465,657	NA	\$10,759,307	\$12,266,035	\$10,709,704	\$5,774,561	\$5,774,561	\$17,054,319	\$17,921,113
Kane Borough Authority Wastewater System	WW	INT	\$12,413,544	\$7,640,236	\$6,403,474	\$7,090,973	\$10,568,000	\$7,188,951	\$27,099,440	\$13,833,050	\$19,484,228
Sadsbury Township Wastewater Utility	WW	C/D	\$11,221,366	NA	\$9,479,861	\$8,230,031	NA	NA	NA	\$14,792,585	\$12,382,987
East Bradford Township Wastewater System Assets	WW	C/D	\$12,100,857	\$18,107,478	\$4,621,191	\$4,980,924	\$3,817,327	\$28,146,836	\$28,146,836	\$6,394,231	\$2,592,034
Township of Mahoning Water System Assets	W	C/D	\$7,863,822	NA	\$6,856,337	\$7,361,891	\$5,420,302	\$8,738,186	\$14,512,934	\$6,371,620	\$5,785,481
Township of Mahoning Sewer System Assets	WW	C/D	\$2,398,026	NA	\$7,407,740	\$8,032,789	\$3,446,922	(\$7,697,442)	(\$5,467,849)	\$5,241,392	\$5,822,627
Cheltenham Township Wastewater System Assets	WW	C/D	\$8,976,439	NA	\$19,438,746	\$17,783,510	\$4,667,752	\$3,126,457	\$3,126,457	\$7,848,028	\$6,844,124
East Norriton Township Wastewater System Assets	WW	C/D	\$10,655,460	\$24,354,883	\$9,517,282	\$12,377,989	\$5,458,735	\$9,607,385	\$9,607,385	\$6,749,094	\$7,570,929

Definitions: Where "INT" is "Fully Integrated Assets" and "C/D" is "Mostly Collection/Distribution Assets".

Where "WW" is wastewater and "W" is water.

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### Selected Transactions Method

# For Borough of Royersford Wastewater System Assets Based on Recent SJW Group's Bid For Connecticut Water Service Inc., With and Without Discount for Cost Free Capital

Connecticut Water Service Inc.			Borough o	of Royersford Wastewa	ter System Assets	3
Purchase Price wa	s: \$1,106,267		Borough of	Selected		
	, , , , , , , , , , , , , , , , , , , ,		Royersford	Transactions		
<del>-</del>	ubject Company Statistics	Transaction Multiple		Multiples		
Investor Provided Capital	\$573,223	1.93	\$4,702,972	\$9,076,298		
Gross PP&E	\$939,050	1.18	\$7,666,493	\$9,031,669		
Net PP&E	\$697,723	1.59	\$5,453,064	\$8,646,046	\$8,861,172	
Revenues	\$107,054	10.33	\$863,000	\$8,918,008		
EBITDA	\$48,920	22.61	\$280,365	\$6,340,118		
EBIT	\$32,236	34.32	\$280,365	\$9,621,497		\$10,852,284
Customers	135,645	\$8,156	1,596	\$13,016,346		
Population	450,000	\$2,458	5,154	\$12,670,445	\$12,843,395	
Average				\$9,665,053		
<u>S</u> 1	ubject Company Statistics	Transaction Multiple				
Investor Provided Capital	\$573,223	1.93	\$4,702,972	\$9,076,298		
Gross PP&E (Less "Cost Free" Capital)	\$646,723	1.71	\$7,666,493	\$13,114,105		
Net PP&E (Less "Cost Free" Capital)	\$480,521	2.30	\$5,453,064	\$12,554,176	\$11,095,202	
Revenues	\$107,054	10.33	\$863,000	\$8,918,008		
EBITDA	\$48,920	22.61	\$280,365	\$6,340,118		
EBIT	\$32,236	34.32	\$280,365	\$9,621,497		\$11,969,299
Customers	135,645	\$8,156	1,596	\$13,016,346		
Population	450,000	\$2,458	5,154	\$12,670,445	\$12,843,395	
				010.660.67		
Average				\$10,663,874		

EXHIBIT 19

### Borough of Royersford Wastewater System Assets Summary of Approach Results and Fair Market Value Conclusion at Appraisal Date

Valuation <u>Approach</u>	Indicated <u>Value</u>	Conclusion	Consideration
Cost Approach	\$13,254,220		33.3%
Income Approach	13,932,841		33.3%
nicome ripprouen	15,752,611		33.370
Market Approach	12,471,156		33.4%
		Conclusion \$13,219,000	